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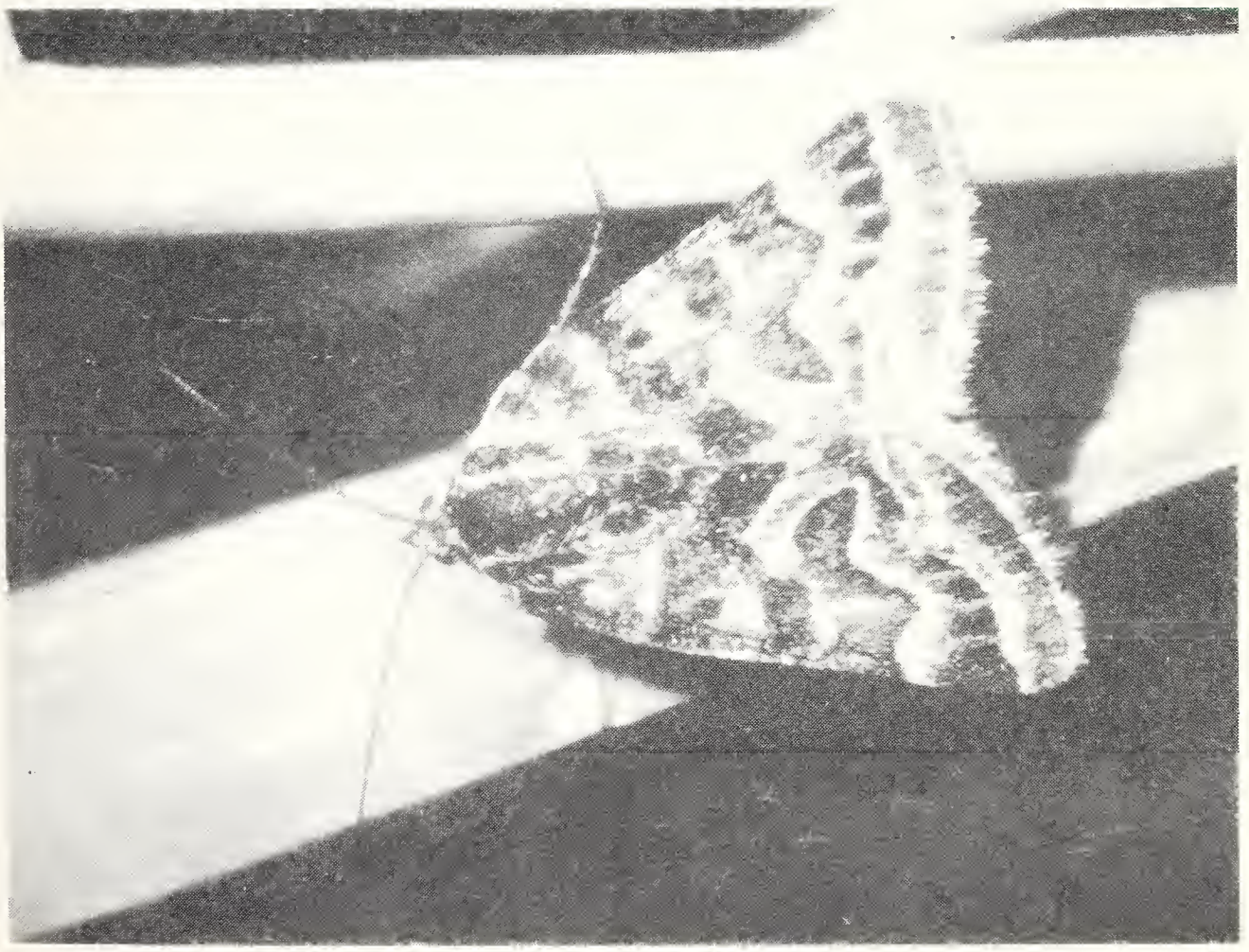

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Cover Picture: "Mother Shipton Moth", by R. N. Goodall

PRESIDENTIAL ADDRESS

delivered in Lincoln on March 18th 1978

by Mr. J.H. Duddington

THE ECOLOGICAL DIVERSITY OF LINCOLNSHIRE AND SOUTH HUMBERSIDE WITH REFERENCE TO THE MACRO-LEPIDOPTERA

Lincolnshire and South Humberside are mainly agricultural counties, but we still have a great diversity of habitats suitable for our macrolepidoptera. For example, many species of moths inhabit the remnants of our fens and marshes which were drained over 150 years ago. After the drainage some species became extinct but others adapted to new man-made habitats. The Bulrush Wainscot (Nonagria typhae) will colonise a pond as soon as the Great Reedmace appears, the larvae feeding internally in the stems. There is an immense assemblage of fen moths. One group, the Wainscots, is adapted to this kind of environment, they have the colour pattern which adapts them to rest among reeds and are well represented in the county.

Probably the woodlands produce the greatest number of species. The White-letter Hairstreak (Strymonidia w-album)* is restricted to woods and lanes, and the Purple Hairstreak (Thecla quercus) to the larger oak woods.

Some of the moths restricted to woods form a marked ecological association with the tree species. The beeches in the Limber woodlands are the home of the Barred Hook-tip (Drepana cultraria) and the Clay Triple Lines (Cosymbia trilinearia). These species are restricted to beech woods, their colouring harmonising with withered beech leaves.

The White Admiral (Limenitis camilla) is another forest insect which was once plentiful in the south of the county, this was the most northerly point for the species in the British Isles. It is a butterfly restricted to woods with a good growth of honeysuckle, the larval foodplant, and can spread outwards from them when conditions are favourable. It disappeared from the county woodlands in the sixties but has returned again in small numbers. Large numbers of White Admirals were once liberated in a suitable wood, but none survived. A similar wood only a few miles away had a very strong colony, so it is possible that other factors exert a control.

A large assemblage of moths feed on poplars and willows. Some larvae bore into the wood and can do considerable damage to these trees.

*Scientific names of Lepidoptera species conform to the "Checklist of British Macro-Lepidoptera", 1946.

We must now consider heaths and moors. Those in the north west of the county such as Scotton Common are only remnants of a former vast tract of heathland. Many moths live upon heathers, Calluna and Erica, and the species resting and feeding on them have a distinctive colour pattern which renders them inconspicuous.

There is a tendency for the trees of acid soils, such as birch, pine and oak to colonise in the course of time all but the wettest ground. The birch and pine germinate and spread so rapidly that if they were not cleared the heather would soon disappear, and with it moths such as the Clouded Buff (Diarcrisia sannio) and the Beautiful Yellow Underwing (Anata myrtilli).

Some species of macrolepidoptera rely on specialised habitats, the Chalkhill Blue butterfly (Lysandra coridon) only occurs in the south of the county on a wide road verge. This again is the most northerly colony in the British Isles, although the larval foodplant Horseshoe Vetch is widespread on the limestone. The Chalk Carpet (Ortholitha bipunctaria), a most typical insect of chalk and limestone hills, feeds upon clovers and trefoils. The distribution map (Ford 1955) shows its most northerly habitat as south of the Wash, but we have one thriving colony in the county, in a Kirton Lindsey limestone quarry.

Many species are adapted to life by the seashore, determined by the fact that they feed on plants which only grow near the sea. The Scarce Pug (Eupithecia extensaria) eats the sea wormwood which is always found on the shore and in salt marshes. This little moth is only found between the Humber and the Thames. This area is the only region of Britain where the climate approaches the dry Continental type which possibly suits the moth.

Some coastal species have adapted themselves to sandy areas inland. The Marbled Coronet (Hadena conspersa) is one of these, it is found in the Scunthorpe area, the larvae feeding on the seeds of Bladder Campion. Another example was the pretty little Green Hairstreak butterfly (Callophrys rubi) which occurs on areas colonised by Gorse and Dyers Greenweed. In the fifties I found six colonies in the Scunthorpe district, but they all disappeared in the early sixties; its stronghold is now on the coast at Gibraltar Point and Theddlethorpe where it is well established.

One of our alpine butterflies is the Large Heath (Coenonympaa tullia) which flies in the north west of the county (South-west Humberside), one of its most southerly habitats. This species is one of our most ancient butterflies, arriving in the 3rd Pleistocene glaciation, and it inhabits damp mosses. Another local and interesting moth is Blomers Rivulet

(Discoloxia blomeri), named after Captain Blomer who detected the species in about 1830. It feeds on Wych Elm but never seems to be found away from beech trees, upon the trunks of which it rests. These conditions occur in the Limber woodlands and there this prettly little species can be found.

While many of the macrolepidoptera show a degree of reliance on specialised habitats in this way, some, such as the Orange-tip butterfly (Anthocharis cardamines) are widespread. This species will breed in gardens on Sweet Rocket, Ladys Smock, Hedge Mustard, cresses and various other plants of the family Cruciferae. The ecology of gardens has not been thoroughly investigated and it is estimated that there are about a million acres of gardens - much greater than the 85,000 acres of Nature Reserves in England Wales. There is no doubt in my mind that gardens collectively in the future will make up our most important Nature Reserve.

Woodlands

Lincolnshire is a rather sparsely wooded county, probably between 2 and 3% of its surface is woodland (See Fig. 1). The haunts of butterflies are determined by the soil and the plants that grow on it. The counties' largest area of woodland is in the Bardney area and on clay. Oak, Small-leaved Lime and Ash are dominant and this type of woodland is the home of many of our butterflies and moths, the foodplants being a sufficient explanation of their habitats.

South Humberside woodlands are on the sand and gravel, and are nearly all conifer plantations planted by the Forestry Commission. The Birch scrub growing on the sandy areas supports a large number of species but only a small number inhabit the coniferous woodland.

The Fritillaries favour a woodland type of habitat but in recent years very few have been recorded, although the larval foodplant, violet, still grows abundantly. The High Brown Fritillary (Argynnis cydippe) occured in the Woodhall and Scawby woodlands in the fifties; about this time butterflies were extending their range. Another fritillary, the Pearl-bordered (Argynnis euphrosyne) is a typical woodland butterfly, observed near Market Rasen around the middle sixties and in many South Lincs woodlands. The more local Small Pearl-bordered (A.selene) hasn't been recorded since the fifties when it was found at Scotton and Laughton in small numbers.

We have had six species of the Skipper family (the Hesperiidae) in the county. The Chequered Skipper (Carterocephalus palaemon) was always very local. The first English record was in 1798 in Bedfordshire and it was plentiful in woods in Lincolnshire about the late 19th century.

I observed this species in large numbers in Skellingthorpe woodlands near Lincoln in the middle fifties. There has been a gradual decline since the 1900's, with the first sites lost being in Lincolnshire, and during the 1960's it gradually disappeared from all the Lincolnshire localities. They like open rides covered with flowering plants, and there have been many habitat changes, woods felled and planted with conifers. Climatic conditions may also be a factor in the decline.

A colony was found in Scotland in 1940, but in scrub which is similar to its' habitats on the continent. The Scottish localities have more humidity than the dry East Midlands of recent years. Let us hope that this lively little butterfly will again be seen in our woodland rides.

Another typical woodland butterfly which is probably now extinct in the county is the Purple Emperor (Apatura iris). It is one of our finest butterflies and our only representative of the sub-family Apaturinae. Towards the end of the 19th century it was seen in Burwell wood, Market Rasen, the Lincoln district, and observed by a Mr. Baines in the Laughton woodlands. Captain Jollans gave an account of the fire on Scotton Common (Gainsborough News 2nd April, 1929) and mentioned taking many species of butterflies including the Purple Emperor. This fine butterfly needs a specialised habitat and it has lofty habits. Although Sallow is the larval foodplant, the butterflies fly around the tops of Oaks, sitting on leaves of the highest branches. It is very doubtful that A. iris will again be seen in the county, as nearly all suitable oakwoods have been felled.

The only woodland member of a family that, as a rule, loves the open country is the Holly Blue (Celastrina argiolus). This small lavender-blue butterfly is double-brooded and in the forties the species was widespread in the county and occured in towns and gardens. It is now scarce and only found south of Lincoln.

Also in the south of the county, the very local Duke of Burgundy Fritillary (Hamearis lucina) was getting scarce around 1961 in the Boston area and is probably now extinct. Its habitats are woodland paths and clearings with a plentiful covering of primroses, but the woodlands have been felled or badly mauled.

Considering the woodland moths, Oakwoods provide food and shelter for some 500 species of insects, but the number of oaks growing in the county is on the decrease. In about 100 years it will be difficult to find an Oak tree in Britain if the present policy continues!

The fine Boarmid moth, the Great Oak Beauty (Boarmia roboraria) is found in a few Lincs oakwoods but since many have been felled the species has become scarce. Another one of our local moths, the Frosted Green (Polyploca ridens) is confined to oak woods, and so far as is known does not visit any of the usual attractions and is rarely obtained in the perfect state.

FIG. 1

Sand

Major Wooded Areas

Many species are specialised feeders on other types of tree; for example the Dingy Shell (Euchaeca nebulata) and the May Highflyer (Hydriomena caerulata) are only found where Alder flourishes. In the fifties the Angle-striped Sallow (Enargia paleacea) was confined to the centre of England, where it feeds on Birch. Formerly constricted to an area in Nottinghamshire, South Yorkshire and Lincolnshire, it has now extended its range and has reached the Humber.

Fens, Marshes and Wetlands

Two hundred years ago large areas of Lincolnshire were undrained but today only remnants of this morass remain.

The extinct Large Copper (Lycaena dispar) was taken by a Mr. Forrington about 1860 and given to Mr. F. Baines of Gainsborough in 1905. The butterflies were found in the nearby Morton Carrs. According to this record Lincolnshire was about one of the very last habitats in the British Isles for this fine butterfly. The introduced Dutch race, batavus, at Wood Walton and Wicken Fen resembles the old English dispar far more closely than does any other.

A pretty geometer, the Marsh Carpet (Cidaria sagittata) was discovered in 1847 near Peterborough; the larvae feed on the flowers of yellow Meadow Rue. It existed locally in South Lincolnshire at Haverholme in 1906, also at Boultham Fen, Billinghay. The Lincolnshire colonies have not been heard of for many years, but a thorough search in places where the larval foodplant grows could again produce this attractive carpet moth. In recent years it has been observed in Nottinghamshire, breeding on a river bank.

Since 1950 many marshy areas have disappeared, having been drained mainly for agricultural purposes. Some species favouring these habitats are now missing or are only found in small numbers. One of these is the little Silver Hook (Eustotia uncula) which had thriving colonies in the Scunthorpe area, but today they are rarely seen. On the other hand, a large secretive moth, the Butterbur (Hydraecea micacea) was rarely recorded in Lincolnshire and South Humberside although the butterbur, whose roots the larvae feed on, grows in profusion on the Trent banks. It has now been reported commonly from the Louth area and is probably more plentiful in marshy areas than was once thought.

There is always a chance of finding a new County record, or even a British one. I was walking along the Trent bank at Amcotts in June 1964 with a schoolboy and a Tilley lamp, recording Wainscots, when he observed a green larva feeding on the foliage of horse radish. After pupation the moth emerged on the 25th August 1964; it was a species I had never seen before. It was identified by Mr. P.R. Seymore of the British Museum as

Clytie illunaris (Hubn), an inhabitant of Southern Europe and Western Asia. This moth was new to Britain and has been named by I.R.P.Heslop, the Trent Double Stripe.

The large handsome Swallowtail butterfly (Papilio machaon) occured in the Woodhall Spa area about 1890. One of Lincolnshire's great naturalists, the Rev. Peacock, leading a Field Meeting in 1894 said it had disappeared after drainage and clearance but used to be common about the reedy pools and bogs near the moor. A more recent record of a female was sighted at Cowbit, in the Welland Washes near Spalding. This was assumed to be a wind-blown vagrant from Wicken as the wind was blowing strongly from this direction at the time.

Sea Shore and Blown Sand

Large numbers of moths and some butterflies are adapted more or less strictly to life on or near the seashore, though many have colonised sandy areas inland. (See Fig. 1).

The Scunthorpe area is well known for its areas of blown sand and sandy heaths. (See Abraham de la Pryme, quoted in Duddington 1965). In ancient times Lindsey was an island and was subject to destructive sand storms from its tidal estuaries. These storms continued in different localities even to the seventeenth century.

In all the sandy heathlands in South Humberside the Grayling butterfly (Eumenis semele) was plentiful in the late forties and early fifties; my last record for this butterfly on Scotton Common was 1960. The vegetation was getting very coarse after myxomatosis had killed off all the rabbits and this was making the habitat unsuitable, but it also disappeared from Laughton Common and here the heathland was little affected. This fine butterfly can still be seen on the sandy duneland areas of Risby and Messingham Common.

A small green butterfly, the Green Hairstreak (Callophrys rubi), is quite plentiful on the east coast among the dunes and is very fond of sitting on the elders. The species also became quite plentiful on the heaths of Humberside, where I observed six colonies within a ten-mile radius of Scunthorpe at one time. They have now all disappeared but there are still a few places in South Lincolnshire where it occurs.

Another species, the Portland moth (Actebia praecox), which is essentially a coastal species and obtained on sandhills, is named after the Duchess of Portland. This species is limited to the coast by reason of an adaptation which it has acquired to this type of habitat, though unconnected with its foodplant. The larva lives by day in a vertical tunnel in the sand and is coloured to match the sand over which it crawls to reach its food. The method of larval concealment tends to confine the

moth to the shore, but colonies do occur on sandy areas inland, such as the blown sands of South Humberside. Here another coastal species, the Archers Dart (Agrotis vestigialis) is also very plentiful, feeding on a number of common grasses.

In the family Arctiidae, which includes the Tiger moths, we have the widely distributed Buff Ermine moth (Spilosoma lutea). In the typical form the ground colour of the male is generally some shade of buff, the female being much paler. A dark form, var zatima Cramer, is known to occur in Heligoland. In 1837 specimens of this variety were reared from caterpillars obtained at Saltfleetby. In recent years zatima has occasionally turned up along the Lincolnshire coast from Gibraltar Point to Grimsby. It could be that this form was isolated when the North sea landbridge disappeared. In 1957 I decided to collect some larvae from Gibraltar Point and interbreed the resulting moths in the hope of recovering the zatima form. The first 1958 parental generation were typical, but in the first 1959 filial generation a very deep buff female emerged. This female was paired with a normal male and in 1960 some deep orange male and female forms appeared. In later broods the deep orange ground colour comprised 100%, with much variation in the black markings.

My breeding experiment was continued for eleven years and 7,900 moths were bred, but var zatima did not turn up. Some specimens of my colour variety were sent to the British Museum, Natural History; they have a number of specimens but they are apparently unnamed.

Wet Heathlands

We still have remnants of the large tracts of wet heathland left in the county, though many disappeared after the turn of the century and are now coniferous forest or have been cultivated. Manton Common, one of Lincolnshire's largest tracts of low-lying heathland was ploughed up in the middle fifties. I recorded nearly 300 species of macrolepidoptera from this site, among them the Large Heath butterfly (Coenonympha tullia).

The heathlands in the Woodhall district are on fen-edge sands. They differ greatly from the north-western heaths and many rare species of macrolepidoptera appear. Other interesting remnants of heathland left in the county are Laughton Common and Scotton Common, where yet other specialised species occur.

One of our butterflies, the Small Copper (Lycaena phlaeas), still appears to be holding its own. The butterfly is seen in all types of habitats; heath, woodland rides, gardens, roadside verges and waste ground in towns. This is probably due to the universal occurrence of docks and sorrel, the larval foodplants. There are two or three broods of butterfly during the

year and rare varieties sometimes appear if the gene is present in a colony. One such colony near Scunthorpe, on rough ground running along the bank of a stream, has now been destroyed to make way for the new Anchor steelplant. I had studied this colony for 10 years and in this time several very rare varieties appeared. One of these had the red colour of the forewings replaced by pure white (var alba), another had the copper band absent from the hindwings (var obsoleta) and several had a golden ground colour. These rare varieties are probably simple recessives.

Only two localities in Lincolnshire have been reported for the Silver-studded Blue (Plebejus argus), one near Doddington about the year 1900 and the other at Laughton Common. The Laughton Common colony was a prolific one and the butterflies were quite plentiful on the road verges until it finally disappeared about 1946. This was certainly not due to the destruction of its habitat or to over-collecting, as very few lepidopterists were aware that it occured in the area.

We have two species of rather local Tiger moths (Arctiinae) which are mainly found among heather on our heathlands. The male Clouded Buff (Diacrisia sannio) can be put up on sunny days, but the female is not seen until the evening. The second species, the Wood Tiger (Parasemia plantaginis), a very attractive moth, is often started up from the heather as one walks along. They often fly in the afternoon sunshine looking for freshly emerged females and I have seen these fast-flying moths taken in numbers by swallows.

We have two kinds of Bee Hawk-moth in Britain. They have flat fluffy bodies and transparent wings and look like a bumble bee. They dart about in the morning sunshine and I have observed them feeding on the blossoms of rhododendron, bugle and red campion. The Broad-bordered Bee Hawk (Hemaris fuciformis) is local but plentiful where it does occur, the larvae feeding on honeysuckle. The Narrow-bordered Bee Hawk (Hemaris tityus) is found only in the Woodhall area, the larval foodplant being scabious.

Migration

Lincolnshire and South Humberside have had a good share of the invasions of several rare species of lepidoptera in the seventies, though only in recent years have scientists begun to realise the significance of the wide-spread distribution of the migratory habit throughout the insect world.

The striking Camberwell Beauty butterfly (Nymphalis antiopa) was first recognised in Britain in 1748. It has always been a rarity, with its appearances extremely sporadic. The years of relative abundance were 1789, 1793, 1846, 1872, 1880, 1900, 1947 and 1976, when it was common, with just under 300 records in the country. In the peak year of 1872 400 were recorded. In August 1976 a high pressure area gave winds between north

and east and swarms arrived, having crossed the North sea from Denmark and Sweden, with Lincolnshire figuring prominently. They were widespread in the county, with three captured in the western outskirts of Scunthorpe in October. The first record I can find for Lincolnshire is one in Louth on the 1st September 1858 and then occasionally until 1896, with a period of 80 years before the 1976 invasion.

In the last 200 years the very attractive Bedstraw Hawk moth (Celerio galli) has only rarely been recorded in Britain in any number. In 1973 it invaded the country from Northern Europe. Fifty larvae were found at Gibraltar Point and others in the Lincoln area. Moths were again observed in 1974, 1975 and 1976 and it is possible that a very limited winter survival could have occured.

One of the largest moths to visit the British Isles is the Convolvulus Hawk (Herse convolvuli), recorded in the county most years. In 1976 they invaded the country in force and nearly 30 moths were recorded in Lincolnshire, mainly in September and October. This species is one of the fastest flying insects, reaching 30-40 m.p.h., and it comes from the Mediterranean area. Eleven moths were taken to the Scunthorpe museum, nearly all found in the Humber villages. They may have followed the line of the Humber and Trent.

Lincolnshire is favoured with yearly visits from the Death's Head Hawk moth (Acherontia atropos), the largest moth to reach these Islands. Being powerful fliers they are found all over Europe and Africa as well as throughout Asia. The larvae and pupae are found in potato fields in the county, the potato foliage being the larval foodplant in this country. This insect has a five-inch wing span, and the common name Death's Head, though pedestrian opinion might take it as a simple description of the design on the thorax, is in fact a reflection of the superstitious awe which this striking moth aroused.

A large noctuid moth, the Great Brocade (Eurois occulta) is a resident in Scotland, but some are occasionally found in other parts of the country as single specimens only. These have no doubt wandered far beyond their normal confines. In Lincolnshire some which are dissimilar to the native race occur most years and are immigrants from abroad. They are much paler than the indigenous form and have probably reached this country from Scandinavia.

A very successful recent colonist among the moths of these islands is the Varied Coronet (Hadena compta). Only three specimens were in existence until 1948 when 11 were caught in a Dover garden flying over Sweet William. In subsequent years larvae have been abundant on Sweet William plants. The moths are now plentiful in the Boston area and one has been taken as far north as the Humber.

In very few cases can we give any reason for the gain or loss of a species in our local lists. In nearly all cases of loss this is definitely not due to over-collecting. We can only hypothesise that it is connected in some way with climate, acting either favourably or unfavourably over extended periods; on the insect itself, its predators and parasites, or on other species with which it is in competition.

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HON. GENERAL SECRETARY'S REPORT

This is my seventh Annual Report, and had been intended to be my last, but I have been persuaded to continue for a little longer. At the same time I must make it clear that, as much for the sake of the Union as anything else, I feel that you should begin to give serious consideration to the choice of my successor.

During the past year your Executive Committee has met on five occasions. This was once less than during the previous year but I don't think it reflects any less attention to the affairs of the Union. The usual matters were discussed but one which has caused, and is continuing to cause, extreme concern is the fact that the 250 additional copies of the Flora of Lincolnshire for which Miss E.J. Gibbons has so kindly provided temporary finance, just cannot now be found. The bill of £860 was paid by her at the beginning of July 1976 and, so far as the Committee was aware, the copies remained in the custody of the printers pending the availability of storage space. This was found last April and it was only then discovered that the copies (together with a further 100 unbound) had been despatched to an unknown address. Unfortunately the printers only retained receipts for goods delivered for a period of 6 months (which had, of course, already expired) but it was thought that they might have been sent either to my office (which I can confirm was not the case) to the Lincoln Museum or to the Lincoln Library. During the intervening period a most careful search has been made at the latter two places but it has drawn a complete blank. I am now giving consideration to the legal implications and shall shortly be writing to Lincolnshire Standard Group. The legal position is not entirely clear but I am hopeful that all is not yet lost (which would, of course, be a most serious state of affairs). Needless to say, the Executive Committee has the matter under constant review.

Apart from this I need only report that the usual Winter Meeting Programme was arranged and appears to have been well received by the members generally.

J.Rowe.

FIELD SECRETARIES' REPORT 1977

Eight general field meetings were held in 1977. In contrast to 1976, fewer individual meetings had a special "theme", but most were chosen to relate to other surveys. Thus, two were held on the Viking Way, two on the Humber bank, and two on LTNC Reserves. At the same time the venues were spread over the county so that as many members as possible could arrange to attend at least one or two - with the proviso that they all had to be in areas good for Lepidoptera, to cater for the specialist interest of the President! With this in mind also, no fewer than four Moth nights were planned. All four in fact went ahead and were much enjoyed, though two were all but rained off, and a third was rather too windy to be ideal.

As part of the self-help policy inaugurated last year and strongly fostered by the Hon. Treasurer, members provided teas and sites for the de-briefing session after three of the meetings and a tea-urn at a fourth. Teas were arranged for the remaining four meetings at local inns or cafes, and all were reasonably priced and fairly well attended.

The first meeting of the year on May 21st, was on the Viking Way at Sewstern Lane. By judicious juggling of cars three sections were walked, and bird maps, plus plant, animal and lepidoptera lists were completed for each stretch. The three stretches were in quite different habitats, one through intensively cultivated farmland, the second along the Grantham canal and the third climbing a ridge between grass fields, and this was particularly well reflected in the bird registrations.

In early June the Union met at New Park Wood, Bardney Forest, for what should have been an interesting lepidoptera meeting. Unfortunately the weather started poor and degenerated. By three p.m. the drizzle had turned to a steady down-pour and very few members remained in the wood. The barbecue planned to fill the gap between the afternoon and evening meetings took place in the kitchen, but later members did return to the wood for the moth session.

A fortnight later, at Grimsthorpe Park we were much more fortunate with the weather. This meeting was held by general request to follow the Ornithological meeting at the same place in 1976. Those members who attended were again very well looked after by Lord Ancaster's agent, Mr. Grimes, who not only supplied a lot of background information for the meeting notes and acted as a walking sign-post on the day, but also took interested members deer-stalking, and finally drove around and whipped in the stragglers so that they were not late for the tea kindly laid on at Birthorpe.

In July a meeting was held on the Humber bank at Barton, to look at the pits, the foreshore and the hillside quarries. Unfortunately the latter were considered impassably blocked by most members, although this did not deter the Botanical Secretary! This meeting was again followed by a moth night, fine for a change, when two lights were in use on the Trust reserve at Barrow, and some very interesting and useful records were obtained.

The early August meeting took place on the Viking Way again, this time on the Spa trail, near Horncastle. Again the weather was indifferent, but though few butterflies were flying, members attending enjoyed a fair diversity of birds and plants along the old railway line.

On 21st August the Union met at the LTNC Reserve, Epworth Turbary, to record all groups for the reserve management team. Again the weather was difficult, with warm sun and fairly heavy showers alternating for most of the afternoon, but some useful records were obtained. Both light and sugar were used in the evening to attract moths, though because of the rain the light had to be kept inside the hut, and some ingenuity was called for in finding spots to sugar.

Another Humber bank survey meeting was held in September. Members met at Horse-shoe Point, and explored the coast either northwards to the RSPB Reserve at Tetney, or south towards Grainthorpe Haven. Again few butterflies were flying, this time due to a strong wind which also kept any migrant birds down out of sight. However, Silver Y moths were present, and a useful plant list of the RSPB reserve was obtained and passed to the warden. The wind was still strong later in the evening when a MV lamp was used at Tetney Blow Wells, and this probably kept down the number of moths arriving. Those recorded though did include some interesting marshland and coastal species, and several were new records for the reserve.

The final meeting of the year, and as usual the most popular, was the Fungus Foray. Jointly led as usual by our own Mycology Secretary and Miss Waterhouse from Kew, this took place this year at Tortoiseshell Wood, south of Grantham. A good collection of fungi was made, and an interesting bonus was the sighting of numbers of Red and Fallow Deer, all leaving the wood very hurriedly as the foragers bore down upon it. For the 60-plus members who attended this meeting, the weather was for once kind, the colours were superb, and cameras were much in evidence.

Anne Goodall, P.Gooseman.

OBITUARY

With the passing of Mr. Sydney Cox, late of Nettleton, near Caistor, the Union has lost one of its oldest and most valued members.

Although not so active in recent years, Syd was for many years Ornithological Secretary, and in 1948 completed a list of the birds of the county for a brochure to be published by the Union. Owing to circumstances beyond his control, this was never used, and was the biggest disappointment in his life. He held a mass of data, having commenced bird watching when he was 16 years of age. He was also well versed in Botany.

He was also a life-long member of the British Naturalists Association, and often recalled the days when the Lincs. Branch took two days to complete a field meeting, using waggonettes and the railway to travel. He had a wonderful knowledge of the coastal marshes, which stood him, myself and the late Mr. A.D. Bates in good stead when we were once cut off by the tides.

Despite a war wound, he was active until a year ago, when having lost his wife he entered a nursing home at Woodhall Spa. He died on December 18th 1977, aged well over 70 years, after a long illness. With his death I have lost a dear friend and a keen bird-watching companion. It is good to know that his wonderfully kept bird records have not been lost.

George Posnett.

SECTION OFFICERS REPORTS

BOTANY

Miss E.J. Gibbons, F.L.S.

Two years ago I wrote of the scheme from Monks Wood for recording the 50 commonest plants in the British Isles. 37 of these are complete for Lincolnshire. No new records have come in in 1977.

Grid square records are still increasing. 20 squares have up to 6 new records (50 in all) while six squares in the SE have between 11 and 37 new records (131 in all).

Centunculus or Anagallis minima (Chaffweed) was recorded in 1877 as a New County Record by Dr Lees and never again until 1976 when found on Kirkby Moor by B. Redman. Since then I had a letter from Miss D. Meynell, telling me she found it on Laughton Common in 1924. Here is a challenge for someone to find it again. It is pink - the size of a pin's head.

Few fresh records have turned up at field meetings this year.

Sewstern Lane Mr. Brasier noted 100 plants - Water Avens, Burnet Rose, 3-fingered Saxifrage and Meadow Cranesbill.

Bardney Forest Wild Service tree, Wood Sorrel, Creeping Jenny, Wood Vetch and Butterfly Orchid.

Grimsthorpe Park Henbane, Deadly Nightshade, Purple Milk Vetch, Columbine - perhaps an escape. Mr. Brasier noted 115 plants.

Barton on Humber Wall Rocket (Diplotaxis tenuifolia), Spiny Resthaven (Ononis spinosa), Wild Celery (Apium graveolens) and a fine show of St John's Wort.

Woodhall Spa The Viking Way, along the old railway line. In spite of drought Miss Read noted 136 plants.

Tetney Blow Wells and Horseshoe Point Mr Brasier listed 59 plants, two of which were records for the square.

Tortoiseshell Wood This is a well-worked area and new records are hard to find. Wild Service tree and Spindle wood were seen.

New Records 1977

	Division		
Polystichum lonchitis	2	New County Record	A.Frankish
Solanum triflorum (alien)	9	N.C.R.	P. Haywood
Nymphoides peltata	12	New Vice-county Rec.	I.Weston, B. Redman
Azolla filiculoides	6	N.V.C.R.	I.W.

New Division Records

Amsinckia intermedia	9	I.W. & E.J.Gibbons
Amsinckia intermedia	10	N.Read
Apera spica venti	2	I.W. and F.Brasier (1st record since 1876)
Aster tripolium	6	E.J.G.
Centunculus minimus	10	B.Redman 1976 (D.Meynell Div.5,1924)

Helictotrichon pratense	1	I.W.
Helictotrichon pratense	18	A.Gray 1974
Impatiens glandulifera	9	F.B.
Luzula multiflora	9	E.J.G.
Poa subcaerulea	4	I.W.
Rorippa islandica	9	F.B.
Rosa pimpinellifolia	2 & 15	F.B.
Rosa tomentosa	16	E.J.G.
Sedum album	6	E.J.G.
Setaria verticillata (alien)	6	I.W.
Sieglingia decumbens	4	I.W.
Vicia tetrasperma	5	E.J.G.

MYCOLOGY

H.J. Houghton

The year 1977 was considerably wetter than the previous two years, and a good crop of specimens and species recorded has been a result. However, at a meeting of the Union at New Park Wood on the 11th June during a rather dry spell, specimens from only 16 species were collected. One only, namely Sphaerotheca pannosa, was a new divisional record. Collections were sparse at other meetings more from a lack of collectors than lack of specimens extant.

Mr. and Mrs Rowe produced specimens from four common species all previously recorded from one of the meetings at Epworth Turbary. They also provided the writer with numerous collections from various locations on other occasions, resulting in all in 25 new divisional records.

More rusts have been sent in for identification during the year than in previous years. Mrs Weston produced Puccinia hysterium and also the smut Ustilago tragopogonii pratense both on goatsbeard from Little Scrubbs Meadow, the former being a new divisional record. She also found Puccinia betonicae DC a week or two later from the same situation to provide a new County Record. Puccinia menthae appeared throughout the writer's mint bed in his garden. Miss Gibbons found Puccinia epilobii on the Great Hairy Willow Herb in her garden at Glentworth. Triphragmium ulmariae was found to be common on Filipendula ulmariae in many locations in the County.

Many times during previous years the milk cap Lactarius deliciosus has been recorded in locations in Lincolnshire, but strong doubts have been thrown this year on many of these determinations by research done by Mr R.H. Rayner of the British Mycological Society. Apparently he finds

that species rare in Britain, and that L.deterrimus, another species with carrot-coloured milk, is far more common. The writer sent specimens to him during the year from Laughton Common under pines. These have been collected (and eaten) in quantity from the same situation for many years, but Mr. Rayner confirmed that they were L.deterrimus. Mr. Rowe found others at Burwell Wood. Some of the previous Lincolnshire records must therefore be suspect, and collections are needed from other locations to clinch the matter. It would be appreciated if members would send to the writer any specimens of milk caps they find which produce carrot coloured milk on bruising or cutting. They should be in as fresh a condition as possible.

Many specimens have appeared this year of the Lawyer's Wig Ink Cap (Coprinus comatus). One such flush in Scunthorpe produced fruiting bodies with little break, even when the grass was cut, in groups of as many as 100 at one time from mid-May to mid-November.

A meeting of the Scunthorpe Branch of the Trust was held at Messingham Quarry on the 30th October, and in about 1½ - 2 hours collecting, specimens from 69 species were collected, showing that further collecting at other times of the year could prove very rewarding.

The annual foray this year was held on the Trust reserve at Tortoiseshell Wood by permission of the Lincolnshire Trust for Nature Conservation. Miss G.M. Waterhouse M.Sc. was again good enough to lead the meeting. Specimens from 87 species were collected, 5 being new County Records, and 30 were new for Division 15. A list of the records is given below, and thanks are due to Miss Waterhouse and her colleagues at Kew for the determination of the County records and other specimens.

Fungus Foray, Tortoiseshell Wood, 20th October 1977

1. New County Records

   Galerina graminea (Vel.)Kuhn.
   Mycena pudica Hora
   Dacrymyces enatus (Berk. & Curt.)Massee
   Typhula quisquilaris (Fr.) Corner
   Nectria magnusiana Rehm ex Sacc.

2. New Records for Division 15

   Clitocybe geotropa
   Clitocybe fragrans
   Clitocybe phyllophila
   Collybia fusipes
   Coprinus radians
   Crepidotus pubescens
   Crepidotus variabilis
   Leptonia euchroa
   Marasmius epiphyllus
   Melanoleuca melaleuca
   Mycena sanguinolenta
   Panaeolus papilionaceus
   Panaeolus rickenii
   Panaeolus sphinctrinus
   Panellus stipticus
   Psathyrella gracilis
   Psilocybe semilanceata
   Resupinatus applicatus
   Tubaria autochthona
   Tubaria furfuracea
   Calocera cornea
   Fomes igniarius

Mycena speira
Mycena stylobates
Mycena vitilis
Omphalina swartzii
Typhula erythropus
Diatrypella quercina
Helotium scutula
Badhamia utricularis

3. In addition to the above, identifications were made of specimens from 52 other species already recorded for Division 15.

Other Records

1. New County Records

Lactarius deterrimus — Division 5 & 8

2. Other Records

47 New Divisional Records accrued during the year, and details may be obtained from the Mycological Secretary.

LICHENOLOGY

M.R.D. Seaward, M.Sc.,Ph.D.

1977 was a particularly important year for Lincolnshire lichenology: a field meeting of the British Lichen Society from 15 to 18 April furnished 28 new county records and a wealth of 10 km x 10 km grid square records for the mapping programme. These data, coupled with other field records assembled mainly by Mrs J. Ostler, Mr E.J. Redshaw and myself, have considerably improved the programme: there are now, on average, approximately 29 post-1960 records per grid square, but there are still 30 grid squares with less than 20 records, of which 9 have yet to be visited. A detailed account of the British Lichen Society's field meeting, which was based at Louth, is to be found in the Lichenologist 10: 111-122 (1978).

This year has also seen the publication of Lichenology in the British Isles 1568-1975 by D.L. Hawksworth and M.R.D. Seaward (1977, Richmond Publishing: Richmond), which is an historical and bibliographical survey and contains important Lincolnshire material including an analysis of published sources relating to the lichen flora of vice-counties 53 and 54.

Acarospora fuscata(Nyl.) Arnold 5, 9, 18
A.veronensis Massal. 7
Arthonia radiata(Pers.)Ach. **8
Arthopyrenia salweyi(Leight.ex Nyl.)Zahlbr. **7
Bacidia arceutina(Ach.) Arnold **8
B.chlorococca(Stz.)Lett. 7
B.melaena(Nyl.)Zahlbr. **7
B.sabuletorum(Schreb.)Lett. 7, 10, *11
Buellia alboatra(Hoffm.)Deichm. Br.& Rostr. 6, 10, 11
B.griseovirens(Turn.& Borr) Almb. **7

Calicium glaucellum Ach. **7
Caloplaca aurantia(Pers.)Hellb. 9, 10, 11, 17
C.decipiens(Arnold)Jatta 7, 17
C.heppiana(Mull.Arg.)Zahlbr. 9
C.holocarpa(Hoffm.)Wade 5, 9
C.murorum(Ach.)Th.Fr. 5, 9, 11 17
C.teicholyta(Ach.)Steiner 5, 10, 17, 18
Candelariella aurella(Hoffm.) Zahlbr. 7
C.medians(Nyl.)A.L.Sm. 9
C.reflexa(Nyl.)Lett. *10
C.vitellina(Hoffm.)Mull.Arg. 9
Catillaria griffithii(Sm.)Malme 8, 9, 10
Chaenotheca ferruginea(Turn.ex Sm.)Mig. 8
C.trichialis(Ach.)Th.Fr. **8
Cladonia conista(Ach.)Robb.ex Allen 14
C.crispata(Ach.)Flot.var. cetrariaeformis(Del.ex Duby) Vain. **7
C.furcata(Huds.)Schrad. 9
C.ochrochlora Florke 7
C.pocillum(Ach.)O.J.Rich. 9
C.pyxidata(L.)Hoffm. 5
C.rangiformis Hoffm. 14
Collema auriculatum Hoffm. *7
C.tenax(Sw.)Ach. 9
Cornicularia aculeata(Schreb.) Ach. 9
Diploschistes scruposus(Schreb.) Norm. 9
Dirina stenhammari(Fr.)Poelt & Follm. 7, 9, 10, 17
Haematomma ochroleucum (Neck. Laund. var.ochroleucum 9, 10 var. porphyrium 9, **10, 11
Lecania erysibe(Ach.)Mudd 6, 7, 9, 10
Lecanora atra(Huds.)Ach. 9, 10
L.campestris(Schaer.)Hue 9
L.carpinea(L.)Vain. **8
L.chlarona(Ach.)Nyl. **7
L.chlarotera Nyl. 7, 9
L.contorta(Hoffm.)Steiner 7
L.crenulata(Dicks.)Hook. 9, 10, 11, 18
L.intricata(Ach.)Ach.var.intricata **11; var.soralifera Suza 18
L.muralis(Schreb.)Rabenh. 7, 9
L.polytropa(Hoffm.)Rabenh. 5, 7, 18
L.varia(Hoffm)Ach. **10
Lecidea coarctata(Sm.)Nyl. 10
L.fuscoatra(L.)Ach.var.grisella (Florke ex Schaer.)Nyl. **11
L.limitata(Scop.)Gray 10
L.lucida(Ach.)Ach. 9
L.quernea(Dicks.)Ach. 7, 8, 9, 11
L.scabra T.Tayl. 5, 9
L.stigmatea Ach. 5, 9
L.sulphurea(Hoffm.)Wahlenb. **9, 10
L.tumida Massal. 9
L.uliginosa(Schrad.)Ach. 5, 6, 10, 11
Micarea denigrata(Fr.)Hedl. **7
M.lignaria(Ach.)Hedl. **7
M.prasina Fr. 5, *7
Ochrolechia androgyna(Hoffm.) Arnold **7
O.parella(L.)Massal. **11
Opegrapha atra Pers. **10
O.chevallieri Leight. **9, *18
O.varia Pers. **10
O.vermicellifera(Kunze)Laund. **8
Parmelia furfuracea(L.)Ach. var.furfuracea 7
P.glabratula(Lamy)Nyl.subsp.glabratula 7, 9, 10; subsp.fuliginosa(Fr.ex Duby)Laund. 9, 10
P.revoluta Flörke **8
P.saxatilis(L.)Ach. 7
P.subrudecta Nyl. 7, 9, 10
P.tiliacea(Hoffm.)Ach. **10
P.tubulosa(Schaer.)Bitt. 10
Peltigera rufescens(Weiss)Humb. 9
Pertusaria albescens(Huds.)Choisy & Wern.var.albescens 8; var.corallina (Zahlbr.)Laund. 10
P.amara(Ach.)Nyl. 9
P.coccodes(Ach.)Nyl. 7
Phlyctis argena(Ach.)Flot. 7, 9
Physcia adglutinata(Flörke)Nyl. **10
P.dubia(Hoffm.)Lett.em.Lynge *6, 11
P.enteroxantha Nyl. 10
P.farrea(Ach.)Vain. 10
P.grisea(Lam.)Zahlbr. 7, 9, 18
P.nigricans(Flörke)Stiz. 9
P.tenella(Scop.)Dc.em.Bitt. 7, 18
Polyblastia dermatodes Massal. **10
Protoblastenia rupestris(Scop.) Steiner 5, 7, 10, 18
Ramalina farinacea(L.)Ach. 7
R.fraxinea(L.)Ach. 9
Rhizocarpon obscuratum(Ach.)Massal. var.reductum(Th.Fr.)Eitner **10, 11
Rinodina exigua(Ach.)Gray 7, 10
R.subexigua(Nyl.)Oliv. 5, 7
Schismatomma decolorans(Turn. & Borr. ex. Sm.)Clauz.& Vezda *10
Toninia aromatica(Sm.)Massal. 9, 10
Usnea subfloridana Stirt. 10
Verrucaria glaucina Ach. 5, 6, 10, 18
V.viridula(Schrad.)Ach. 5, 7, 9, 10
Xanthoria aureola(Ach.)Erichs. 7
X.candelaria(L.)Th.Fr. 18

The Lincolnshire lichen flora can now be summarised as follows: 221 taxa have been reported from the county, of which one has proved to be erroneous and five are doubtful in the absence of supporting herbarium material; of the remaining taxa, 201 have been recorded during the past fifteen years and 13 have not been seen for at least sixty years (of which six are almost certainly extinct).

VERTEBRATE ZOOLOGY

M. Johnson F.Z.S.

Firstly I would like to thank those members of the Lincolnshire Naturalists' Union who have given their support to the Animal Survey. Much useful information is now coming in on the survey sheets. Thank you also for the specimens sent in to confirm some of these records in the form of owl pellets and dead animals. Most of the small mammal records are obtained through owl pellet results or from animals trapped in bottles.

Almost every 10 km. square in the county has now been well covered for mammals but there is still plenty of work to be done on the reptiles and amphibians. I would like to hear from any member about the frogs, toads and newts found in ponds near their home from every part of the county.

Records so far received indicate that most common mammal species will be confirmed from almost every tetrad in the county, and the only difficult species are Dormouse, Yellow-necked Mouse and Water Shrew. Only one record of Yellow-necked Mouse has been received, that being of two mice of this species that were found trapped in an empty milk bottle left under the RSPB Warden's caravan at Tetney Haven. One interesting report received from B. Walker of Scunthorpe Museum is that of a melanistic Field Vole which was found trapped in a plastic bottle left in a garden. This curious little mammal had velvety black mole-like fur and brown ears.

A pleasant surprise in the survey results is in the number of Otter sightings. Eighteen recent sightings have been received from survey observers. On the other hand a rather unwelcome mammal that seems to be gaining a foothold in the county is the Mink. It is a carnivore that we could well do without and its spread is due to excapes from mink fur farms.

A very fine specimen of a Polecat or Polecat Ferret was found dead on the road near Louth and a photograph of this animal was exhibited at the Section Officers' Report meeting. A recent report that Polecats on the

Riber Castle Fauna Reserve in Derbyshire have been so prolific that numbers have been liberated in suitable areas in the hope of increasing stock means that we may have a few genuine Polecats established in the country in the near future.

I would repeat that we still need more records of reptiles and amphibians urgently in order to complete our Animal Survey.

LEPIDOPTERA

J.H. Duddington

Not a very good year for the lepidoptera. After the fine warm summer of 1976 expectations ran high but 1977 proved to be disappointing and many species were below average. The long cool spring had an adverse effect on butterflies and moths and some emerged over a long period. The appearance of migrants was also disappointing - even the numbers of the prolific Silver Y moth (Plusia gamma) were low.

First let us consider the butterflies. The whites were about average but the Green-veined White(Pieris napi) managed three broods, breeding in gardens. It was very nice to see the Orange-tip (Anthocharis cardamines) out in good numbers and widespread. We have not seen as many Brimstone butterflies (Gonepteryx rhamni) in South Humberside this season, and I found that both ova and larvae had fungal or virus trouble. A 1976 Brimstone butterfly in a tattered condition was egg-laying on July 20th.

The Browns had a mixed season. Not a good year for the Wall (Pararge megera), a very poor first brood. Meadow Brown (Maniola jurtina), Small Heath (Coenonympha pamphilus), Ringlet (Aphantopus hyperantus) were about average, but Speckled Wood (Pararge aegeria) were on the wing in large numbers.

No records were received of Fritillaries, Chequered Skipper (Carterocephalus palaemon) or Chalkhill Blue (Lysandra coridon), but the Large Heath (Coenonympha tullia) is still holding its own on Crowle Waste.

Blues had rather a poor season, with Common Blue (Polyommatus icarus) not as plentiful as the previous year, and only a few records of the Holly Blue (Celastrina argiolus) in the south of the county. However the Hairstreaks are doing well in their county habitats. I observed a Purple Hairstreak (Thecla quercus) in a wood near Scunthorpe on September 7th; my previous record for this wood was August 1st 1948.

Five species of Skippers were noted in the county and appear to be well established.

The migratory Red Admiral (Vanessa atalanta) and Painted Lady (V. cardui) were scarce and only observed as singles on buddleias, etc. Peacock (Nymphalis io) were plentiful. Mr. Mason observed about 150 in a walk of half a mile at Linwood on the 14th September. A good year also for the Small Tortoiseshell (Aglais urticae). Mr. A.E. Smith remarked that he had never seen so many nests of larvae as he observed in the autumn on the banks of the river Slea at Haverholme.
White Admiral (Limenitis camilla) is still with us, but had a poor year.

Green Hairstreak (Collophrys rubi) Gib. Point (R.E.M.P.)
Saltfleetby (V.W.)

Brown Hairstreak (Thecla betulae) Bardney (R.E.M.P.,A.E.S.)
Purple Hairstreak (Thecla quercus) Messingham (J.H.D.) Bardney (R.E.M.P.)
White-letter Hairstreak (Strymonidia w-album) (R.E.M.P.)
White Admiral (Limenitis camilla) Bardney (R.E.M.P., A.E.S.) July 23rd.
Essex Skipper (Thymelicus lineola) Boston (A.E.S.), Saltfleetby (R.E.M.P.)
Large Heath (Coenonympha tullia) Crowle Waste (J.H.D.)

Late butterflies:
Red Admiral (Vanessa atalanta) Hibaldstow, 4th Nov. (V.W.)
Small Tortoiseshell (Aglais urticae) Scunthorpe, 10th Nov. (JHD)

Moths

This year the M.V. lights did not attract as many moths, and numbers of many species tended to be lower than the previous season. The only migrants of importance were six Great Brocade (Eurois occulta) and a Scarce Silver Y (Plusia interrogationis), both migrants of the Scandinavian form observed by R.E.M. Pilcher of South Thoresby. Two Convolvulus Hawk-moths (Herse convolvuli) were found dead on a cattle grid near Louth, and another in Lincoln. The Gem (Nyctosia obstipata) was reported from Gibralter Point.

The Elephant Hawk-moth (Deilephila elpenor) came to light at Twigmore in late May, and was observed up to the middle of August, with larvae in October.

The night of the 14th October was a spectacular one for the common migrant Angle Shades (Phlogophora meticulosa); three traps in the South Thoresby district attracted 3929 moths. Larvae were found by members of the LNU, feeding in December and January.
Other interesting species recorded:

Butterbur (Hydraecia petasitis) South Thoresby (REMP)
Alder (Apatele alni) Twigmore, Holme Lane, (JHD)
Obscure Wainscot (Leucania obsoleta) Boston (AES),
Messingham Quarries (ALG)
Frosted Green (Polyploca ridens) Bardney (JHD)
Drab Copper Underwing (Amphipyra berbera) Woodhall (REMP)
Old Lady (Mormo maura) (REMP)
Chalk Carpet (Ortholitha bipunctaria) Kirton Lindsey (JHD)
Wormwood Shark (Cucullia absinthii) Brumby N.R. (JHD)
Brown-veined Wainscot (Nonagria dissoluta) Tetney (JHD)

In conclusion I would like to express my thanks to the following members who kindly sent me their lists of records for the past year. Miss J. Eastmead; Mrs A.L. Goodall; Mrs V. Wilkin; Messrs D. Brant; F. Brasier; P. Gooseman; E. Mason; R.E.M. Pilcher; G. Posnett; K. Saville; A.E. Smith; K. Wilson.

CONCHOLOGY

E.V. Redshaw F.L.S.

Non-Marine

During 1977 an additional 112 10km records were accepted for the mapping scheme. Generally numbers of new records per square were in single figures. However in the south-west and north of the Union's area, at Uffington and West Deeping (53/00 and 53/10), and at Barton and Killingholme (54/02 and 54/11) double figures were reached. The writer is again indebted to Mrs V. Wilkin for her assistance north of Lincoln, and for attending and reporting on molluscan finds at field meetings.

Of particular note have been Mrs Wilkin's finds of Hippeutis complanatus (L.) near Barton and Saltfleetby St. Peter. This species has a very limited distribution in Lincolnshire and South Humberside, and appears to be suffering from a contraction of its former range. Mrs. Wilkin also discovered a further site for Pomatias elegans (Muller). An empty shell of this species was found in Somerby Wood, near Brigg, but live specimens have not been found.

The only Vice County record for the year was Truncatellina cylindrica (Ferrusac), of which six specimens were found in sieved material taken from a Bronze Age site at Billingborough Fen,(53/126334), by the writer. This is the first record of the species for VC.53, and only the fourth for the "county". The species has been recorded live from Cleethorpes (1896) and Gibraltar Point? 1888, and in the sub-fossil state from the Broughton deposits. Also John Beaulah, in 1913, said that he had found it "many years ago" at Burton Stather. Unfortunately there is no voucher material extant to verify this claim.

Marine

Marine species have been recorded from Butterwick Marsh, Horseshoe Point Tetney, Saltfleet, Gibraltar Point and Frampton Marsh by Mrs Wilkin and the writer.

BOTANICAL NOTES

1. Orobanche purpurea (Yarrow or blue broomrape)

The broomrape plants transplanted in March 1977 flowered successfully in their new sites and a total of 64 flowering spikes were recorded in June. Most of the South Killingholme pit is now filled in. The newly found colony on high ground at the far end of the pit flowered well in 1977 and efforts are being made to safeguard this small area.

The transplant operation has been fully recorded and details given to the Rare Plants Recording Project at Cambridge and to Plant Records at Monks Wood.

2. The Red Data Book of British Vascular Plants

In December 1977 the Red Data Book dealing with the Conservation and Status of the Endangered British Vascular Plants species was published by the S.P.N.C. at Nettleham. It has been produced as a result of many years of recording and correlated and written by Dr Franklyn Perring and Miss Lynne Farrell of Monks Wood. An interesting item is the inclusion of Agrostemma githago, the corn cockle - once common in Lincolnshire, but obviously a victim of agricultural herbicides and sprays and now a rarity. It is also of interest that this plant has been recorded in 1977 for the first time in the county since the 1950's by Lincolnshire Seed Growers crops inspector, Mr. Patrick Donnellan.

3. Dactylorhiza fuchsii (Common spotted orchid)

A new colour variant has been recorded from near Crowle by the author. It is of great interest in that it is completely unspotted, suffused with a deep purple pigment on the leaves, the flowers unmarked, of a deep purple colour and velvety texture with paler laterals. This form has not previously been described. About seven plants were recorded in 1977 on the river bank and they will be investigated more fully in 1978. Photographic records have been submitted to Mr Roberts at Bangor and to Monks Wood. A thorough search of the taxonomic literature has produced nothing similar.

Irene Weston, B.Sc.

THE W.W.F. CHAROPHYTE PROJECT IN LINCOLNSHIRE

The Purpose and Conservation Aspects

Many familiar features of the British landscape are the result of Man's activities and very few areas of the country are free from his influence. Building, mining, farming, forestry, recreation and many other activities alter the nature of the land and as a result change the communities of animals and plants which exist in a particular area. Frequently the main result of man's interference is the establishment of a community which, for a considerable time afterwards, is less varied and interesting than the one it replaced. It is one of the aims of conservation to minimise this tendency and to increase, rather than decrease, the diversity of communities.

To investigate the need for conservation of one particular group of plants, the Charophyta (Stoneworts), the World Wildlife Fund commissioned a survey of habitats where the plants are likely to be found (i.e. ponds, gravel pits, dykes and ditches) to be carried out in Southern England where the pressures of population and agriculture are intense. The fieldwork was greatly assisted by the co-operation of landowners and local people among whom there is an immense reservoir of interest in, and sympathy with, conservation.

The following points are of general interest to conservationists:

1. Alongside the destruction of sites, some wet habitats are also being created by the flooding of pits following clay and gravel extraction; and there is a scheme, backed by industry, to preserve village ponds that would otherwise fall into disuse.
2. The proper local management of dyke systems may partially redress some of the loss of species diversity which results when marshes are drained.
3. Although local interest and management makes a great difference there are cases where there is a need for a national, as well as a local consideration of the problem. The pollution of the Norfolk Broads by human sewage is one such case and another is the conservation of water resources underlined by the drought of 1976, during which this survey was carried out.

Apart from outlining some of the special problems involved in conserving aquatic habitats it is hoped that this survey will also promote greater interest in the Charophyta.

Results

The author carried out the field work in Lincolnshire with the help of R.H. Bailey on July 6th, 1976. We would like to thank Mrs Irene Watson of the LTNC and Mr John Porter of Bridge Farm for their help and hospitality.

a) Barling's Pits, Langworth. TF 074752.
A series of rapidly drying brick-pits, with very murky water; one contained a small scrap of C. vulgaris.

b) Mill Drain, Bridge Farm, Tattershall. TF 199565 and TF 200564.
This dyke contained very large amounts of C. vulgaris var longibracteata.

c) Saltfleetby National Nature Reserve, Saltfleetby St. Clements. TF 4791.
In a small brackish pool, dug in the dunes in c. 1974 to attract birds, C. vulgaris var papillata and var refracta, and T. glomerata were found.

No charophytes were found at the following sites:

d) Trout pond, Hatton, Wragby. TF 168765. An old brick-pit.

e) Mar Dike, Saltfleetby St. Peter. TF 437896. A brackish dyke.

It is difficult to assess the status of the Charophyta in Lincolnshire as only a few, very different, sites were visited.

Collection and Preservation of Charophyta

1. Collect by hand where possible as brittle species are easily damaged, but a boat and drag and line may be necessary for large areas of water - Charophytes grow at various depths.
2. Collect whole fruiting specimens making sure both sexes of dioecious species are present.
3. Clean specimens in a dish of water by gentle agitation, removing unwanted items with forceps or water-jets from a syringe.
4. Keep specimens alive for identification by placing them in polythene bags of water and storing in a cool place away from direct sunlight.
5. For long-term storage - pickle in 2% formalin or 50% alcohol. Keep storage containers topped-up with preservative to prevent drying-out.

Fresh or pickled specimens will be welcomed by the Museum. Full details of locality and habitat should be included.

When posting material (preferably fresh, immediately after collection) the following should be observed:

i. place in a polythene bag.
ii. pour off excess moisture.
iii. wrap with wads of newspaper for protection and to absorb leaking moisture.
iv. place in an envelope or padded "Jiffy bag".

If preserved material is posted it should be in 2% formalin (not alcohol) and the container should be completely full and well sealed.

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LINCOLNSHIRE NATURALISTS UNION

Statement of Accounts : 1st. January 1977 to 31st. December 1977

RECEIPTS			
Cash at Midland Bank 1.1.77 C/A	424.45		
D/A	2740.19	3164.64	
Subscriptions		426.25	
" 1978 in advance		66.50	
Tax repayments on covenated subs.		61.77	
Donations		19.50	
Members Efforts : Mrs. Adam's "At Home"	132.80		
Sponsored Walk	78.04		
Others	41.50	252.34	
Sales of L.N.U. Publications:			
Transactions		65.65	
Flora		202.58	
Geology		1156.52	
Others		37.43	
Interest: on Deposit account			
No. 1. (Publications)	88.92		
No. 2. (General)	17.26	106.18	
	£	5559.36	

Audited and found correct. W.M. PEET. 1.2.78
(Honorary Auditor)

EXPENSES BY:			
Printing:	1000	Geology of Lincolnshire	2150.00
	350	Transactions, Vol.XV111 No.4	206.00
	350	Transactions, Vol.X1X No. 1	385.00
	350	Index to Vol XV11	29.60
Duplicating:		Geology prepublication notices	8.80
		Where to look for Animals	8.33
Postage :		Transactions	31.38
		Geology	25.50
		Flora	14.86
General Stationery			21.51
Padded Bags for packing Geology			53.20
Secretarial Expenses			17.06
Duplicating and Postage of Notices			43.26
Hire of Rooms			13.00
Lecturers' Expenses			4.00
Insurance for Field Meetings			5.00
Subscriptions to Societies (C.P.R.E., Council for Nature)			9.75
Refund of Overpaid Subs.			2.00
Bank Charges			1.50
Cash at Bank 31.12.77 C/A		30.39	
D/A No. 1		1736.13	
D/A No. 2		773.01	2539.53
		£	5559.36

It should be noted with gratitude that the anonymous donor of the £250 loan shown in the 1976 accounts has cancelled the repayment of the loan because members' efforts have raised more than that amount since the loan was made to the Union.

Honorary Treasurer : J.D.W. OWEN

BIRD REPORT

Secretary's Report

Joan Garlick

1977 was again an active year for the Ornithological Section. Thirteen field meetings were held during the year of which five were devoted to a survey of the summer bird population of Epworth Turbary. Two meetings were held to record birds to be seen on stretches of the Viking Way. In the Temple Bruer area in April large flocks of Golden Plover, many in summer plumage were seen resting on passage. In July the stretch between Walesby and Nettleton was covered. The December meeting in Dole Wood was the first of a series to investigate the winter bird population to complement the summer survey of 1975. During the year section members also took part in the National B.T.O. winter survey of Golden Plover.

In addition to the survey work three coastal meetings were held. In April at North Killingholme Marshes among other waders the group was able to observe Black-tailed Godwit and about twenty Ruff and Reeve at close quarters, and an early Grasshopper Warbler was both heard and seen. A vist to Tetney Blow Wells completed a most rewarding day. In June, near Frampton Marsh, Common Tern and two pairs of Little Tern were seen nesting as well as the large colony of Black-headed Gulls. The autumn meeting at Horseshoe Point afforded the opportunity to watch spectacular flocks of waders both in flight and at rest, as well as to hear Whimbrel calling. Other meetings took place at Barkston Heath and at the old gravel pits near Baston.

Reports from Y. O. C. Groups

We have been pleased to receive reports of activities during 1977 from the Young Ornithological Club groups. The Lincoln group made three visits to Chambers Wood in March, April and May, and carried out a survey under their leader Richard Holland. On the March visit Snipe were drumming and Little Owl pellets were found. In April seven different summer migrants and a Nuthatch were identified and Cormorants were seen flying over the wood. The highlight of their May visit was the sighting of a pair of Sparrowhawks.

Bourne Woods provided the main watching area for the Junior school group at Witham on the Hill. Here the children were helped to observe and identify the resident woodland birds under the guidance of their leader John Luck.

Clifford Jukes, leader of the Tetney group had a very young group of beginners who concentrated on watching common easily seen birds.

The Ornithological Section Bunting Survey 1975-1976

Buntings as a group have several features which lend themselves to censusing; they have clear easily recognisable songs and calls, they inhabit largely open country but have well-defined territories, and though only small birds they sit conspicuously on song-posts where they will remain until approached quite closely. In addition they have a long song-period and even in dull weather when not singing the males remain on their song-posts and can be censused visually. On the other hand they are common birds in most areas, so that a total census is not possible. The three common species - Corn, Reed and Yellow - also have different habitat preferences, so that sample areas would either have to be carefully chosen so as not to introduce bias, or very large or numerous in order to cancel it out.

For these reasons it was decided in performing a county Bunting survey to sample using a line transect method. This does not claim total accuracy in counting, but does allow the establishment of ratios of abundance. It was hoped that in this way comparisons could be made:

a) between the species; this would be particularly useful if the survey were to be repeated after say ten years. In the past few years Reed Buntings have much increased their range and may still be doing so. (Gordon, 1972) Repeating the survey would monitor any increase and also determine whether it is at the expense of the other two species.

b) between different regions of the county; this will be affected particularly by such factors as soil type and land use, especially farming practice.

Method

The units of a line transect, according to theory (see for example, Yapp 1962) may be either time or distance. For an open situation where the subjects - the birds - are fairly scattered, the latter is more appropriate and in Lincolnshire there already exists the ideal medium for transects, in the network of field paths and green lanes.

Observers were therefore asked to select a green lane or path through farmland as typical of their area as possible and at least 2 km long. The transect did not need to be straight, but should be continuous. They were asked to prepare a sketch map, marking the field boundaries (whether hedges, walls, fences, ditches or a combination) with heights, trees if present and type of crop or stock in the fields on either side. Finally they were asked to walk the track and mark on their map the position of all buntings seen or heard within 100m either side of the track, using the initials and conventions of the BTO Common Bird Census.

Time of day, weather conditions and grid references of the start and finish points were also to be marked on the map.

Originally the survey was designed to take place during the last two weeks of May and first two of June. However it became obvious that buntings were still singing and exhibiting territorial behaviour long after this, so the survey was extended until the end of July.

Investigations into the method

Use of a line transect method as described above was a new venture for the section and several investigations were carried out to determine its accuracy and discover if possible any limitations and sources of error.

a) Basic to the transect method was the use of existing field paths and tracks. These have a major difference, namely that the former have only one "edge" or boundary, the latter usually have two. It was felt important therefore to examine whether this would affect the results and if so whether this bias could or should be allowed for. Efforts were made to find areas of similar country and farming regime with both paths and tracks. This proved fairly difficult and in some cases minor roads were used in place of tracks. The results were complex but indicated that where the track or road was narrow (i.e. less than the radius of a territory) and the two boundaries were of the same type - e.g. both hedges or both ditches - then the second "edge" had little or no effect on the number of territories. When the two boundaries were different, e.g. a hedge and a ditch, there may or may not be more territories. On the whole this did not affect Corn Buntings, whose territories were very large, but did tend to increase the number of Reed Bunting territories.

After some discussion it was decided that since the type of boundary was very closely tied to the local farming practice this difference (while possibly increasing the population density locally) probably reflected a real difference in local population ratios and should therefore be accepted. No attempt has therefore been made to "correct" number of territories for number of boundaries but this point should be borne in mind.

b) One possible source of error is that of under-recording birds not singing or displaying due to poor weather conditions, or at different stages of the breeding cycle. An accessible 3 km stretch of track and path in TF 07 was therefore selected and walked by one observer 5 times during the season, covering various times of day and weather conditions. A number of other walks were covered twice. Comparing the results it was apparent that on some occasions Reed Buntings were under-recorded, though Corn Bunting registrations were very consistent and Yellow-hammer only slightly less so. There may therefore be a tendency for Reed Bunting numbers to be low, though in fact this affected the ratios very little. This result was also taken to mean that the method probably gave a good estimation of

estimated territory numbers, the latter may have increased them, but since the same rules were applied throughout, the comparison between areas is valid.

Since a reasonable total transect length was covered, this was broken down into the major soil types (after Jukes-Brown, 1895) for further consideration. The length of transect in each area is given in Table 1.

soil type	km. transect
Limestone	28.9
Clay	59.3
Fen	59.5
Chalk (Wolds)	16.4
Marsh	14.3
Sand	9.9

Table 1. Transect length in different areas

The ratio of abundance of bunting territories, expressed as number per 10 km length of transect for ease of comparison, is given for each area in Table 2.

soil type	Corn	Reed	Yellow	Total
Limestone	7	12	18	37
Clay	1	23	32	56
Fen	4	25	10	39
Wolds	9	34	21	64
Marsh	6	29	14	49
Sand	0	19	26	45

Table 2. Bunting territories per 10km length of transect.

Discussion

Considering the first four soil types in Table 2, some very interesting comparisons of bunting habitat preference can be made. (The last two are disregarded since the length of transect obtained was low. This also applies to some extent to the Wolds, but this area is included since it is a large and important area of the county with a high population of buntings.)

On a "habitat preference" scale for buntings, each area can be described as "least", "middling" or "most" popular with each species, as shown in Table 3. It is particularly interesting that for both Reed and Yellow Buntings the three categories equate with a 1:2:3 scale of abundance in the habitats, whilst for Corn Bunting there is no real "middling" preference.

Species	Least	Middling	Most
Corn	Clay Fen		Limestone Wolds
Reed	Limestone	Clay Fen	Wolds
Yellow	Fen	Limestone Wolds	Clays

Table 3. Bunting Habitat Preference.

Since this may be presumed to indicate real differences between the habitat requirements of the species it is possible to look more closely at some environmental factors which may illuminate these. For several factors the four habitats can be arranged along a scale, and this is done for two in Table 4. These two were chosen as representing a natural feature - dryness or otherwise of the habitat - and a man-made feature, type of agriculture. A number of others are certainly or possibly relevant, for example presence and height of vertical components in the habitat, but they are in the main inter-related and to express them all would need a multi-dimensional table!

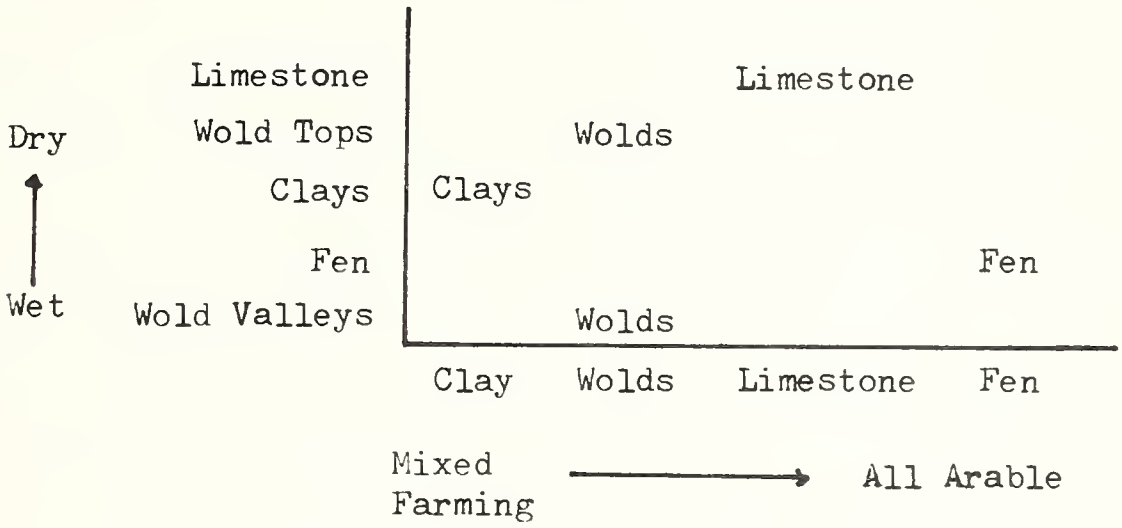

Table 4. Environmental factors in the habitat.

In Table 4 the Wolds appear twice on the "dryness" scale since they actually comprise two distinct habitats. The uplands are only less dry than the Limestone, but they are dissected by some of the few remaining true stream valleys in the county, and these areas may be locally wetter than either the Clays or even the Fens.

Considering Tables 3 and 4 together, for the Corn Bunting the "most prefered" areas are Limestone and Wolds, both at the top of the "dryness" scale and least prefered are Clay and Fen, both wetter areas. The farming practice would seem relatively less important to this species since its two least prefered areas come at opposite ends of that scale. The "wet" Wolds can be ignored for the Corn Bunting since they occupy in fact a very small part of the total area and a Corn Bunting territory may be over a kilometre long, as measured by this method.

Corn Buntings were shown to need a medium vertical component for use as a song-post, but though trees and telegraph wires were both used they also sang from dry-stone walls only three feet high, so this demand is not excessive.

The Yellowhammer shows an entirely different pattern of preference. Both its most and least prefered areas are wetter, on the whole, than its middling preferences. In this case the correlation would seem to be with farming practice, since its density decreased with the increase of arable.

absolute numbers for Corn and Yellow Buntings, but would be on the low side for Reed Buntings.

c) Following from this in order to discover whether there had been any great change between 1975 and 1976 which would invalidate "pooling" of the results, four of these walks were repeated in the second year. All of the results fell within the range of the repeat walks during 1975, so it was felt reasonable to pool the two years' walks.

Results

During the two years of the survey 21 observers carried out 57 "Bunting Walks" over a total distance of 188.3 km. Twenty-eight 10 km squares were visited and all areas of the county were covered. Since the transects were 200 m wide, this represents very approximately 37.7 km^2.

The calculated ratios shown and discussed below were based on the number of bunting territories crossed by the transect, and these were determined from the completed maps using the following criteria:

1. Each definitely different singing male was considered to be holding territory. (Here the use of dotted lines on the map to join two males definitely singing at the same time is a great help). Where two registrations might have been the same bird and there was no other evidence, only one territory was counted. Almost all Corn Bunting territories were defined by mapping males singing against each other.

2. A pair of birds acting "in a proprietary manner" towards a particular area were considered to be holding the territory, even if the male was not heard to sing.

3. A single male sitting up on a song-post or a number of posts within a small area was considered to be holding territory even if not singing, especially if no other male was singing nearby. (Both Reed and Yellow Bunting males were commonly found to do this in dull weather, especially while the observer was farily close to them. Sometimes they would utter repeated short calls, or later sing as the observer retreated).

4. A female alone, with no sight or sound registration of the male was only regarded as holding territory if a nest was found or she was obviously feeding young close at hand.

Other registrations, of single birds or juveniles, which did not fulfil one of these criteria were discounted as 'strays'. Reed Buntings in particular posed two problems since at times they appear to be polygamous, at others semi-colonial nesters - it was not unusual to find two males singing from the opposite sides of one smallish bush, apparently quite happily. To deal with this, females seen within about 20m of each other with no or only one male were considered to be sharing a territory even if both clearly had a nest. In colonial situations every male Reed Bunting seen was considered to be holding a "territory". The former possibly under-

Yellowhammers were most common in areas of small fields and good hedges, often but not always associated with grass fields for cattle and sheep. For this species the demand was for a vertical component of 5' and above - Yellowhammers rarely sang from bushes or hedges below this height. Trees and wires were again commonly used.

Bushes, preferably continuous as in a hedge or thicket were an absolute requirement for nesting and this also has a bearing on the scarcity of this species in the Fen and Limestone areas. Territories varied in length from 20 - 100m along the transect in the most densely populated areas.

Most interesting of all is possibly the Reed Bunting since it doesn't apparently fit any pattern. However its least prefered area is also the dryest, the Limestone, and it shows middling preference for two wetter areas Clay and Fen. Its most prefered area is apparently the Wolds, but its numbers here are too great to be fully explained by the relatively small areas of "wet" Wolds, though it reaches its greatest density here in the stream valleys. The explanation for this may be that the species explosion noted in the last few years started from high density areas like this and Reed Buntings are now moving out to occupy what would previously have been a relatively hostile environment. Reed Buntings were commonly recorded holding territory far from water, ditches or reeds, using low bushes as song-posts and often nesting in tall grass. Colonial nesting makes territory size hard to assess, and the concept seems to have less relevance to this species than the other two.

It is also interesting that although the Reed Bunting is the most successful of the three species in the Fens, this is not is prefered habitat. The Reed Bunting has the least demand for a vertical component in the habitat, but it does need song-posts, if only the stems of reed or umbellifers, and fenland ditches tend to be kept clear of vegetation.

Overall, bunting density is highest in the Wolds and Clay soils and rather lower on Limestone and in the Fens. Both these areas tend to "Prairie" farming and are largely devoid of hedges, fields being bounded, if at all, by walls or fences in the first and ditches in the latter.

Conclusion

This is a relatively simple censusing method, allowing a great deal of comparative information to be obtained from one visit to an area. The value is increased by data on boundary type and height and farming type, since from this it has been found possible to relate abundances of the three buntings to factors in the habitat, and to derive a possible explanation for their distribution and relative densities over the county.

Acknowledgements

Thanks are due to the many ornithologists without whom this survey would not have been possible.

Anne Goodall M.I.Biol.

References:

Gordon M. "Reed Buntings on an Oxfordshire Farm" Bird Study 19 (1972) 81-90

Jukes-Brown A.J. and Woodruffe Peacock E.A. "Soils and Natural History Divisions of Lincolnshire". LNU Nat.Hist.Brochure 1895.

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THE BREEDING BIRDS OF BASTON FEN NATURE RESERVE - 1977

Introduction

Baston Fen was established as a nature reserve by the Lincolnshire Trust for Nature Conservation in 1967, and is scheduled by the Nature Conservancy Council as a Grade 2 Site of Special Scientific Interest by virtue of the national importance of the flora and the secondary ornithological interest. The site is situated in south Lincolnshire 4.75 km south-east of the town of Bourne, in the 10km square 53/11. It covers an area of 36.5 hectares, has a maximum length of 2.85km and an average width across the washlands of 0.175km.

Recording of bird life has been carried out on a regular basis since 1967, and selected breeding species, mainly waders and wildfowl, have been censused annually since 1970. To conclude the first ten years of survey work it was decided to carry out a full breeding survey.

Description of Reserve

The reserve spans the South Kesteven peat fens on a SW - NE axis, and is conveniently located for controlled flooding and drainage purposes between the R. Glen (normal water level 3.00 m AOD.*) and the Counter Drain (normal water level 1.40 m AOD.*). A high watertable is maintained in summer via an open connection from the Counter Drain into the reserve's dyke network, the ground level over much of the washland being only 15 to 25 cm above normal dyke water level. Part of the washland amounting to some 14 hectares is flooded every winter from early December to early March, and some water is retained on one wash until late April/early May.

Major Habitats

(a)	Neutral grassland on peat (the washes), with some sedgebeds, grazed by cattle from April to October, or cut for hay in July and grazed from August to October.	20.00 ha.
(b)	Tall herbage, including sedges, reed sweet grass and reed canary grass.	7.54 ha.
(c)	Bank of R. Glen, containing grassland and tall herbs.	6.56 ha.

(d) Aquatic areas and margins, drainage ditches, dykes, meres and borrowpits. 1.85 ha.

(e) Sallow and osier scrub or carr, including coppiced osier beds. 0.55 ha.

(f) linear woodland and mature scrub along line of former hedgerow, mainly elm (Ulmus sp.), ash (Fraxinus excelsior), Hawthorn (Crataegus monogyna) and elder (Sambucus nigra). 900.00 metres

Method of Survey

The census was carried out in accordance with the method recommended for the British Trust for Ornithology's Common Birds Census. Registrations of territory-holding males, of nest sites and broods, were plotted on 1:2500 scale outline maps by the author who visited the reserve on eight occasions between 19th March and 26th June to carry out census work. Recording was reasonably uncomplicated due to the open nature of the area.

Results

Table 1. shows the number of species for which it was possible to plot nests, territories or broods within or based on the reserve, together with their associated habitats. A few species which bred outside the reserve boundaries had territories extending into the reserve; these are shown in Table 2. Other species that have bred on the reserve since 1967, but not in 1977, are shown in Table 3.

A total of 43 species comprising 169 pairs bred, or were believed to have bred on the reserve in 1977. The small numbers of some woodland species, such as Wren, Robin, Dunnock and tits, reflects the paucity of suitable cover and nest sites. The planting and coppicing of osiers has begun, and this will increase the diversity of nest sites, the osiers being coppiced at a variety of levels. Also it is hoped that this habitat will attract a greater variety, and larger numbers, of warblers. The absence of more than a single pair of Reed Warblers is explained by the very limited amount of common reed (Phragmites communis), which is so small that it does not even attract the one pair present. The construction of wooden toilets for ice skaters enables swallows to nest. They have also nested in the flood-light reflectors.

The density of Reed Buntings in habitats in which they held territory (8.09 ha.) was 1.48 pairs per hectare (or for comparitive purposes 148 prs per km^2.). The typical density for this species in wetland habitats is 50 to 70 pairs per km^2. For the Redshanks with 3 pairs on 20.00 hectares of grassland (15 prs/km^2) this appears to be about the optimum level, and it is unlikely to increase by more than one additional pair.

Table 1

Species, Number of "Territories" held, and Associated Habitats

Species	Number of pairs breeding	Others possibly breeding	Total pairs	Habitat(s)
Mallard	8	-	8	A/E
Teal	2	1	3	A/T
Shoveler	-	3	3	A/G/T
Tufted Duck	5	-	5	A/T
Mute Swan	1	-	1	A
Red-l.Partridge	-	3	3	E
Grey Partridge	-	4	4	E
Pheasant	-	5	5	E/T
Water Rail	-	1	1	T
Moorhen	4	-	4	A/T
Coot	8	-	8	A
Lapwing	5	-	5	G
Snipe	11	-	11	G/T
Redshank	3	-	3	G
Stock Dove	1	-	1	F
Woodpigeon	2	-	2	F
Turtle Dove	2	1	3	F/S
Cuckoo	1	1	2	S/T
Skylark	11	-	11	E/G
Swallow	2	-	2	D
Great Tit	1	-	1	S
Blue Tit	1	-	1	S
Wren	2	-	2	S
Mistle Thrush	1	-	1	F
Song Thrush	6	-	6	S
Blackbird	8	-	8	S
Robin	2	-	2	S
Reed Warbler	1	1	2	S/T
Sedge Warbler	14	-	14	T
Willow Warbler	1	-	1	S
Spotted Flycatcher	1	-	1	F
Dunnock	2	-	2	S
Meadow Pipit	3	2	5	E/G/T
Yellow Wagtail	2	-	2	G/T
Starling	present	-	present	F
Greenfinch	1	-	1	S
Goldfinch	4	2	6	S
Linnet	5	2	7	F/S
Redpoll	1	-	1	S
Chaffinch	3	1	4	F/S
Yellowhammer	3	2	5	F/S
Reed Bunting	12	-	12	T
Tree Sparrow	present	-	present	F

Habitat Key

F	Elm, ash and mature hawthorn
S	Scrub, sallow and osier beds
G	Grassland on washes
T	Tall herbage, sedge and sweet-grass beds
A	Aquatic, open water and margins
E	Embankment

Apart from Reed Buntings, the other main breeding species were Snipe, Skylark and Sedge Warbler with, in their respective habitats, densities of 37.4, 41.1, and 173 pairs per km^2. The overall density of breeding species on the reserve was 463 pairs per km^2, well below that recorded from such diverse farmland as Reydon Grove in Suffolk (700 prs./km^2), but well above Manor Farm, Low Toynton, Lincolnshire (250 prs./km^2). A census of other open wet grassland sites, with limited amounts of scrub, in the county or in East Anglia would provide interesting comparisons.

E.J. Redshaw
(Reserve Manager)

References:

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Gordon, M. 1972. Reed Buntings on an Oxfordshire Farm. Bird Study, 19 : 81-90

Sharrock, J.T.R. 1976. The Atlas of Breeding Birds in Britain & Ireland. Tring.

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Table 2

Additional species Breeding adjacent to Reserve with Territories Extending over Reserve.

Collared Dove	1 pr.	Windmill Farm
Barn Owl	1 pr.	Thurlby Rails
Swift	present	Windmill Farm
House Martin	present	Windmill Farm
Jackdaw	present	Windmill Farm
Pied Wagtail	1 pr.	Thurlby Rails
Bullfinch	1 pr.	Ward's Plantation
Corn Bunting	1 pr.	West End Hedge
House Sparrow	present	Windmill Farm

Table 3

Other Species recorded breeding on the Reserve, 1967-1976

Garganey	Whinchat
Wigeon	Grasshopper Warbler
Short-eared Owl	Blackcap
Little Owl	Garden Warbler
Long-tailed Tit	Whitethroat

Ringing Report

Almost every active ringer contributed to this year's report.

About half of the birds ringed were caught on the coast. The fall in wader numbers was offset by an increase in activity at Gibraltar Point.

Inland, the Mid-Lincs Ringing Group did much more work and were responsible for the ringing of most of the Owls and Corvidae.

Easterly winds were not as frequent as the previous year and this is reflected in the decrease in numbers of Redstarts and Pied Flycatchers. Despite the lack of favourable winds 2 Barred, 1 Greenish, 1 Yellow-browed and 10 Icterine Warblers were ringed. It was also a good year for Wrynecks and Red-back Shrikes.

The most notable birds of the year were the two Thrush Nightingales caught at different sites on the coast. These represent a county ringing "first" and an addition to the species list.

Other species caught infrequently in Lincolnshire included Puffin, Sparrowhawk, Sandwich Tern and Ring Ouzel.

G.P.Shaw

Species	Gibraltar Point Total	Lincolnshire Total
Great Crested Grebe		9
Grey Heron		55
Mallard		910
Teal		19
Gadwell		9
Wigeon		21
Pintail		6
Shoveler		3
Tufted Duck		263
Pochard		23
Red-crested Pochard		1
Scaup/Tufted Hybrid		1
Sparrowhawk		1
Kestrel	2	4
Red-legged Partridge	6	10
Pheasant	2	2
Moorhen		27
Coot		207
Oystercatcher		736
Lapwing		12
Ringed Plover	13	18
Little Ringed Plover		4
Grey Plover		351
Turnstone		127
Snipe		1
Curlew		2
Bar-tailed Godwit		17
Common Sandpiper	1	1
Redshank	4	110
Greenshank	1	2
Knot		685

Species	Gibraltar Point Total	Lincolnshire Total
Dunlin	32	3,536
Curlew Sandpiper		1
Sanderling		8
Common Gull		2
Black-headed Gull		66
Sandwich Tern		5
Puffin	1	1
Stock Dove	2	20
Woodpigeon	10	25
Turtle Dove	11	21
Collared Dove		10
Cuckoo	4	10
Barn Owl		5
Little Owl		1
Tawny Owl		10
Swift		20
Kingfisher	2	8
Great Spotted Woodpecker		1
Wryneck	5	13
Skylark	25	48
Swallow	95	733
House Martin	1	95
Sand Martin		1,282
Carrion Crow		16
Rook		150
Jackdaw		17
Magpie	1	5
Jay		4
Great Tit	33	387
Blue Tit	123	1,247
Coal Tit	7	106
Marsh Tit		8
Willow Tit	2	40
Long-tailed Tit	16	141
Bearded Tit		1
Treecreeper	1	36
Wren	99	285
Mistle Thrush	7	29
Fieldfare	7	33
Song Thrush	149	793
Redwing	61	196
Ring Ouzel	1	3
Blackbird	146	1,555
Wheatear	9	14
Stonechat	1	1
Whinchat	8	10
Redstart	28	56
Thrush Nightingale		2
Nightingale	1	11
Robin	64	357
Grasshopper Warbler		5
Reed Warbler	28	166
Sedge Warbler	91	207
Icterine Warbler		10
Blackcap	80	200
Barred Warbler	2	2
Garden Warbler	23	134
Whitethroat	158	371
Lesser Whitethroat	41	118
Willow Warbler	272	688
Greenish Warbler		1

Species	Gibraltar Point Total	Lincolnshire Total
Chiffchaff	11	64
Wood Warbler	1	5
Yellow-browed Warbler		1
Goldcrest	85	239
Firecrest	1	1
Spotted Flycatcher	8	57
Pied Flycatcher	29	70
Dunnock	493	1,251
Meadow Pipit	17	47
Pied Wagtail	2	26
Grey Wagtail		3
Yellow Wagtail		7
Red-backed Shrike	4	9
Starling	124	1,896
Greenfinch	69	388
Goldfinch	152	350
Linnet	306	917
Twite	4	5
Redpoll	347	881
Bullfinch	21	249
Chaffinch	47	199
Brambling	2	4
Yellowhammer	6	66
Reed Bunting	176	334
House Sparrow	280	391
Tree Sparrow	341	721
Totals:- Species 118	4,202	25,144

General Bird Report

The following notes are based on records received for 1977. The sequence adopted differs from that used in previous years and follows "List of Recent Holarctic Bird Species" Voous, K.H. 1977 which is now being used for most County Bird Reports. The layout has been changed, not only to make the report more readable, but also to make it possible to add brief comments about species and species groups. This year there are fewer records available. This unfortunate state arises from the resignation of Keith Atkin as the L.N.U. Bird Recorder. Keith in his capacity as the County Bird Recorder has produced the L.N.U. Bird Report for the past nine years. The opportunity is taken here to thank him for his industry on behalf of the L.N.U. for painstakingly producing such a comprehensive report throughout this time.

The year 1977 produced two unusually interesting periods of records of migrant birds. The first from 20th to 25th April was notable for the early spring records of Tree Pipit, Yellow Wagtail, Redstart, Whinchat, Grasshopper Warbler, Sedge and Reed Warbler and Whitethroat. There then began a period of unseasonable weather and the main influx of migrants did not arrive for another two or three weeks. September however produced the most unusual set of records. This month is usually associated with passerine migration but 16th to 18th September was remarkable for the number of Grebes, Shearwaters, Gannets, Geese, Duck, Waders, Gulls and Skuas

recorded on or near the coast. Thus the six Great Crested Grebe at Gibraltar Point on 16th September may not seem many but is the highest autumn number recorded there, and there were five recorded at the Witham mouth on the same day. That the same few days brought unprecedented numbers of the other species can be seen in the following report.

Diver numbers were comparable with previous years apart from the exceptional number of Red-throated - 11 on 8th and 12 on 9th January at Gibraltar Point. Single Black-throated were recorded at the Humber mouth on 17th and 18th September and at Gibraltar Point on 20th November. A single Great Northern was at Gibraltar Point on 9th January and one at Humberstone 12th November.

The resident Grebes had a good breeding year with apparently more than usual success. Coastal records included 23 Little Grebe at Gibraltar Point in Late August, 6 Great Crested on 16th September, 1 at Chapel Pits and 5 at the Witham mouth on the same day. Red-necked singles were recorded at Gibraltar Point in January and at Covenham reservoir in January, February and December. Slavonian and Black-necked singles were at Covenham reservoir in early autumn.

Numbers of Fulmar, Shearwater and Gannet recorded in spring and early summer were small, but strong winds in early autumn were responsible for a marked increase in these species. The first Fulmar were 3 at Gibraltar Point flying south on 22nd April followed by singles on ten occasions to early June, and 2 at Trent Falls in mid June. In the autumn 16th to 18th September were bonus days. At the Witham mouth there were 5, at Gibraltar Point 288, and an estimated total of 500 on the Humber. The last record of the year was 2 at Gibraltar Point on 18th November. Apart from the unprecedented number for 1976, records for Sooty Shearwater were very much up on previous years with reports from the Humber, Chapel Point and Gibraltar Point where 6 were seen on 16th September and 11 on 17th. Manx Shearwater appeared on the coast and inland at Trent Falls in August, but maximum numbers were recorded in mid-September with 6 at Gibraltar Point on 16th, 40 on 17th, and 54 on 18th with 1 at the Witham mouth and 10 on the Humber on the same days. For the second time since 1971 a Storm Petrel was recorded. It was seen at Gibraltar Point on 16th Sept.

Gannet were reported on the Humber on 5th June. There was a big increase in passage numbers on 17th and 18th September with 150 at the Witham Mouth, 278 at Gibraltar Point, 200 on the Humber as well as substantial numbers on the coast between Chapel Point and the Humber. An immature was seen at Trent Falls in mid-October and 2 on the Humber on 12th November. Cormorant were seen regularly throughout the year. Winter numbers included 22 at Barton on Humber on 15th January, 11 at Gibraltar Point on 6th January with a maximum number there of 13 on 21st April. On the 9th January, 24 were counted on the Humber and 44 on the Wash, and on 6th February a total of 108 birds were counted, 54 of them on the Humber and 54 on the Wash. In autumn on 17th and 18th September 55 were recorded on the Humber, 8 to 9 flying south at Chapel Point and 13 at Gibraltar Point. On 11th December 65 were recorded on the Wash between Butterwick and Terrington. Inland records included 2 at Spalding in January, 3 at Messingham Sand Quarries on 6th June, several on the Ancholme regularly, and up to 4 at Trent Falls from late March to the end of August. An unusual record was of 3 flying over Bardney Forest on 16th April, and 1 was seen over Burton Pits on 30th September. Shag were present in small numbers on the coast in winter.

The booming of the Bittern was heard at the South Humberside site up to mid June. A steady increase in breeding pairs of Heron continues, from 138 in 1969 to 301 in 1977. The distribution of nest sites is shown on the following table. On the coast up to 5 were present at the Witham Mouth except in March and April, 5 at Gibraltar Point in Autumn and up to

5 at Donna Nook for most of the year. 7 were counted at Trent Falls on 26th September and 8 on 8th October.

Heron Nest Sites 1977

Deeping	82	Newball	16
Troy Wood	78	Thornton Curtis	16
Muckton	37	Howsham	9
Doddington	26	Evedon	6
Willoughby	20	Rand	2
Laughton Forest	16		

Spoonbill were seen at Gibraltar Point in May and on the Humber in May and June.

Wildfowl numbers for the Humber and the Lincs. Wash are compared for selected dates on the following table.

	Mute Swan	Bewick's Swan	Pink-footed Goose	Brent Goose	Shelduck	Wigeon	Teal	Mallard	Pintail	Pochard	Tufted Duck	Eider	Common Scoter	Goldeneye
9th Jan														
Humber	6		1	241	120		155	219		6			6	5
Wash		5	1570	3175	7867	568	45	167	17			112		155
6th Feb														
Humber	2		41	799	1268	232	346	210	2	8	13		7	18
Wash	10	1	4000	4872	8402	230	19	88	8			35		
11th Dec.														
Humber	2	17		657	718	24	35	66			1	2		
Wash			1073	4895	5123	1581	260	590	74			37		25

There has been a noticeable decline in herds of immature Mute Swan, and fewer records of Bewick's and Whooper Swan than in recent years. The numbers of Pink foot remained low in the north of the area generally, but up to 400 were recorded at Trent Falls in January and up to 640 in the autumn. 2 White-fronted geese were recorded at Trent Falls on 2nd Jan., 5 at Whitton on 6th February and 1 at Gibraltar Point on 4 days in March. There were occasional sightings of single Greylags at Gibraltar Point, Trent Falls, Messingham Sand Quarries and on the Humber between January and June with 6 at Messingham on 2nd May, 15 at Gibraltar Point on 13th and up to 11 in June. Autumn sightings included 17 at Gibraltar Point on 18th September and 18 at Burton Gravel Pits in October, 8 at Trent Falls on 21st October, 2 at Lea Marshes from October to December and 7 were present at Messingham Sand Quarries on 11th December. The possibility of some of these being feral birds cannot be excluded. Canada Geese bred at a number of inland sites. Interesting coastal records were of birds flying south at Gibraltar Point - 6 on 29th April, 5 on 30th and 11 on 27th June. A single Barnacle Goose was seen at Gibraltar Point on 12th May. In view of the continued increase in Brent Geese a table of sites on the Wash is included.

Distribution of Brent Geese on the Lincs. Wash

	Gibraltar Point	Wainfleet	Friskney	Wrangle	Benington	Butterwick	Frampton	Kirton	Welland Mouth	Holbeach	Dawesmere	Gedney	Terrington	Total
9th Jan.	1	70		600	110	632	490		250	455	350	212	5 300E	3,175
6th Feb	17	255	16	900	340	504	1280	7		695	450	260 410 SE	148 280 SE	4,872
11th Dec.		1641		471	610	915	338			300		620 150E	(75E)	4,895

The importance of the west side of the Wash can be seen. Brent have spread to the south side only in recent years. In addition to those on the Humber and Wash 400 to 500 were present at Theddlethorpe-Saltfleetby. The last of the winter at Gibraltar Point was seen on 15th May. Some Brent appear to spend the summer in the Wash. At the Witham mouth 50 had arrived on the coast by 18th September. One seen at Holbeach was of the pale bellied race.

Shelduck had a poor breeding year on the Humber, but numbers continue to increase on the Wash, the biggest concentrations being at the mouths of the Welland and Nene. There is an apparent decline in winter numbers of Wigeon. The peak count at Trent Falls was 350 on 7th January and at Gibraltar Point there were 217 on 22nd January. Frampton and Holbeach held the bulk of those counted on the Wash in January and February, but in December numbers were concentrated at Butterwick and Terrington. 1 pair attempted to nest at Kirton Marsh but it was washed out by the tide. The first records of autumn were on 29th and 30th July at Trent Falls and Gibraltar Point. By 27th August there were 400 at Gibraltar Point and 100 were seen at the Witham mouth on 18th September. Besides the record of a single Gadwall at Goxhill on 6th February there were interesting Spring sightings away from the coast of a pair at Ewerby Waithe pond on 9th April and 2 at Burton Gravel pits on 15th May. Autumn records included up to 6 at these pits from September to December, and they were seen through most of August at Gibraltar Point with 12 on 5th and 16th, and 1 was present on 24th and 25th October. Four were at Ferriby Cement works on 27th October and 1 at Trent Falls on 5th November. As with Wigeon Teal have declined in recent years. Gibraltar Point had 120 in early January. Inland records showed 44 at Messingham Sand Quarries on 1st January and 32 on 6th March. Small numbers were present at Burton Gravel Pits from January to October with 14 in August, at Hardy Gang and Somerton Low Fields on grassland in January, and at Dunston Wood in April. At least 2 pairs bred at Baston Fen. There were no other breeding records. In autumn Gibraltar Point had 130 on 7th August, and inland there were 210 at Messingham Sand Quarries on 25th September, and up to 130 stayed to winter in the Messingham-Twigmoor area. Trent Falls had peaks of 310 in late October and 360 in early November. Of the 260 shown for the Wash on 11th Dec. 145 were at Holbeach. Maximum number of Mallard were recorded in August with 340 at Gibraltar Point on 24th and 1,000 at Trent Falls on 31st. All the Pintail recorded on the table for the Wash were at Terrington. In addition Gibraltar Point winter peak was 24 on 6th January, and there were 2 at S. Ferriby on 27th February, and 1 at Trent Falls on 30th Jan.

and 25th February. 1 was seen at North Killingholme pits on 18th June. In autumn 12 occurred at Gibraltar Point on 24th August, and 2 on the Humber on 17th September. They were present at Trent Falls from August to December with 45 on 30th September and 38 on 12th October.
2 Garganey were recorded at Gibraltar Point on 3 days in April and a single on 8th May. Trent Falls had a drake on 13th June. Shoveler were present at Gibraltar Point from mid-Jan. to mid April with a maximum of 5 on 17th April, and 12 were present in mid August. 2 were seen on the Humber on 6th February and 15th May. Birds were present at N.Killingholme Pits on 23rd April and 5 pairs were there on 18th June. A pair was seen at Burton on Stather from 13th to 19th May; and 1 bird at Barton on Humber on 16th July. Trent Falls had 1 to 4 from May to August and 1 in October. 6 were seen at S. Ferriby Cement Works on 27th Sept. Inland 1 or 2 were recorded at Messingham Sand Quarries from the end of March to the beginning of July with up to 4 in April. 13 females were present on 4th July, and 1-3 from 11th September to the end of the year. At Burton Gravel Pits 7 were seen on 22nd Sept. and 3 at Whisby Pits in December. In the south of the county 1 was recorded on Denton reservoir on 6th Jan. and 3 pairs possibly bred at Baston Fen. A Red-crested Pochard was present at Ashbyville from 22nd Aug. to 10th Sept. Pochard were at Gibraltar Point Jan. to early April with 18 on 27th Feb. There were 2 at Barton on Humber on 12th Feb. and 2 at N.Killingholme Pits on 18th June. They were present at Winterton Road to the end of March with 18 on 24th Feb., and occasionals for the rest of the year. At Burton Gravel Pits 9 were seen on 6th, 15th and 21st April where 1 pair and possibly 2 bred. In the autumn 4 birds were at Ashbyville on 9th Sept., and 20 to 30 in the area in December. Trent Falls had 1 on 2nd Aug., 12 on 8th Oct. and 3 on 19th Nov.
At Messingham Sand Quarries they were present in every month with maxima of 41 on 5th and 6th Feb. and 51 at the end of December. Coastal and Estuary records of Tufted Duck not in the table include 20 on the Humber on 6th March, a drake at Trent Falls on 17th May, 3 birds on 19th, 5 on 4th July. There were 4 at Gibraltar Point in May and 6 on 11th and 14th Sept. Among inland records were 30 at Messingham Sand Quarries regularly and up to 27 at Burton Gravel Pits at both of which places they bred, and 5 pairs bred at Baston Fen. Autumn records for the north of the county totalled 116 on 5 waters, with small numbers of birds flying west at Trent Falls in Aug. and Nov. Maximum was 30 on 15th August. A female Scaup was seen at New Holland on 15th Feb. In autumn 1 was seen on the Humber on 17th Sept. and 7 on 11th Dec. 3 females were recorded at Covenham reservoir on 10th Dec. The build up of Eider over recent years on the Wash seems to have levelled off with the Jan. number of 112 much the same as last year. At Gibraltar Point 23 were seen on 23rd Jan., 2 on 16th April and 5 on 21st June; and 2 were recorded on the Humber on 7th May. Autumn records not on the table included 3 at Gibraltar Point on 13th Aug., 25 on 10th Oct., 1 on 15th Oct. and 1 on 27th Dec. There were 2 at Frieston Shore on 18th Sept. One male and 2 female Long-tailed Duck were at Covenham reservoir from Jan. to March, 1 at Gibraltar Point on 15th and 16th Nov. and 1 male at Messingham Sand Quarries on 20th and 21st Nov. At Gibraltar Point numbers of Common Scoter built up from 48 in June, 73 on 30th July to 120 on 29th Aug. The autumn peak occurred on 17th and 18th Sept. with 30 at the Witham mouth, 200 at Gibraltar Point, 100 on the Humber and large numbers seen offshore from Chapel Point. Velvet Scoter were seen singly at Gibraltar Point on 8th and 22nd Jan., 4th April and 9th May, with 2 on 2nd April. In autumn 1 was recorded on the Humber on 17th Sept., 12 to 15 at Chapel Point on 18th and 1 at the Witham mouth. There were 2 at Gibraltar Point on 29th Aug. and 10th Oct. and 5 on the Humber on 11th Nov. Most of the Goldeneye recorded on the table were concentrated at the Witham Mouth. At Trent Falls 1 to 4 were seen from Jan. to March, and 5 on 15th and 10 on 18th Nov. Messingham Sand Quarry had 1 female on 6th and 13th March and 1 to 3 birds in Nov. and Dec. A Smew was recorded on the Humber on 10th April. Red-breasted Merganser were at Gibraltar Point in early Jan. and there were 2 on 9th March. Singles were at Benington and Terrington on 9th Jan. From the end of June to Dec. 1 or 2 were seen occasionally at Gibraltar Point with 14 on 30th Aug. and 7 on 18th Sept., and 3 were

recorded at the Witham mouth on the same day. On the Humber birds were seen at the end of July and in Nov., and 5 at Trent Falls on 3rd Oct. Goosander seen on the Humber in Jan. included 2 at Barton on 15th and there was a pair at Covenham reservoir on 23rd. At Trent Falls there were 4 on 30th Jan. and 3 on 26th March. In the south a pair was recorded on Denton reservoir 19th Feb. Records for later in the year included 1 at Trent Falls in July and singles at Gibraltar Point in Nov. and Dec.

An early record of Marsh Harrier was of 1 seen between Skegness and Croft on 3rd April. The nesting pair at Blacktoft Sands reared 2 young which were seen on the wing in the area from the end of July to mid-Sept. In addition 6 passage birds were recorded there between mid-May and Sept., and 1 female from 23rd Nov. to the year end. Singles were at Gibraltar Point in May and on the coast north to the Humber. In autumn 1 to 2 were recorded occasionally in Aug. and Sept. with 1 seen at Mog's Eye on 30th Sept. In the Wash 2 immatures were seen at the Witham mouth 21st and 28th Aug. and on 5th Sept., and a female also on the latter date. There was 1 at Burton Gravel Pits in September, and 1 at Terrington on 11th Dec. A female Hen Harrier was recorded at Gibraltar Point on 25 days from Jan. to April and on 28th May. Other records in the early part of the year included sightings at S.Ferriby, Covenham reservoir, Alkborough Flats and the Isle of Axholme. Up to 3 ringtails and 1 male were at Blacktoft Sands from 1st Jan. to 8th March. Further south there were 2 females at Kirkby Moor during the winter and 1 was seen at Dawesmere in Jan. Autumn records included a single at Gibraltar Point on 18 days from late Oct. to the year end, with a pair on five days in Dec. There were 2 ringtails at Blacktoft sands 11th to 31st Dec. A bird was seen at Wainfleet and 2 at Holbeach in Dec. A pair of Montagu Harrier was seen over Trent Falls on 13th May and an immature was reported at Leverton Sea Bank on 20th Oct. There were fewer spring records of Sparrowhawk but autumn numbers were much the same as in previous years. Gibraltar Point had singles on 12 days in April and May. A pair was seen at Chambers Wood on 14th May and a female at Waddingham on 24th June. In autumn 1 to 2 were at Gibraltar Point occasionally from mid-July to mid-Dec. Singles were recorded near Ferriby, Trent Falls, Messingham, Burton Gravel Pits, a female at Moor Farm, a bird at Scrubb's Meadow and at Old Leake during the same months. A single Buzzard was recorded at Gibraltar Point on 9th April, 20th Aug. and 26th Sept., and 1 near Barkston Goose Farm on 30th June. There were 4 spring records of Osprey, an early one at Gibraltar Point on 24th March, 1 at Trent Falls on 23rd May, 1 at Bishop's Bridge Trout Pond and 1 at Toft Newton reservoir on 20th June. There were no autumn records. Maximum coastal records of Kestrel included 13 at Gibraltar Point on 25th July, 11 in the Immingham-Killingholme area in early Nov. and 6 on the Wash in Dec. Merlin were recorded occasionally in winter and autumn on the coast and in the Humber, and there was 1 at Dunston Quarry on 5th Jan. A Hobby appeared at Gibraltar Point on 29th May, a female at Trent Falls on 13th Aug., and a male in Lincoln on 8th Oct. A female Peregrine was at Trent Falls on 5th March and 1 bird was recorded at Butterwick on 11th Dec. On the whole autumn records for raptors were low which points to a poor breeding season.

Very few records of Game birds were received, the only consistent records for comparison were those from Gibraltar Point, where peak numbers were 30 Red-legged Partridge on 9th Sept., 10 Grey Partridge on 23rd Oct., and 30 Pheasant on 30th Nov.

Records of Crakes and Rails were also sparse. Up to 3 Water Rail were recorded occasionally from Jan. to May and from Oct. to Dec. at Gibraltar Point. It was also recorded at a number of sites on the Humber and inland in the same months and possibly bred at Baston Fen. Peak coastal numbers recorded for Moorhen were 17 on the Humber in early Jan., and 15 at Gibraltar Point on 25th Oct. Coot were present from early April at Gibraltar Point with 20 in Oct. On the Humber there were 116 at Barton in mid-Jan.

The common estuarine waders are summarised in the following table for selected winter dates. Additional notes on these and comments on the less common species are given.

Wader Counts. Humber and Lincs Wash compared for selected dates

	Oystercatcher	Ringed Plover	Golden Plover	Grey Plover	Lapwing	Knot	Sanderling	Dunlin	Snipe	Bar-tailed Godwit	Curlew	Redshank	Turnstone
9th Jan.													
Humber	222	88	378	823	275	800	18	9402	15	5	6	1391	128
Wash	9766	7	85	1427	79	6339	26	20361	5	1612	1124	494	88
6th Feb.													
Humber	592	53	527	398	793	3609	52	8778	9	436	119	813	83
Wash	12960	12	34	1389	95	21551	231	20101	2	5359	1434	1213	140
11th Dec.													
Humber	3013	5	447	213	406	12500	30	3450	5	165	513	107	72
Wash	3271	5	715	489	277	12400	5	12981	11	155	393	743	87

Of the Oystercatchers shown for the Wash in Jan. 7,000 were recorded at Wrangle and Friskney and 2,000 at Dawesmere. Of the Feb. total over 10,000 were at Gibraltar Point and 1,000 at Kirton. In Dec. there was a concentration of 2,000 at Wainfleet. Avocet were reported at Tetney Haven in June and at Killingholme Pits in Aug. A Collared Pratincole was seen at Trent Falls on 11th June. Up to 3 Little Ringed Plover were seen in the Scunthorpe area between the end of March and the end of Sept. with 7 at Messingham Sand Quarries on 22nd Aug. One was recorded at Donnington on Bain on 27th April. There were occasional birds at Trent Falls from June to mid Aug. and 1 at N.Killingholme Haven on 3rd Sept. Gibraltar Point had 1 at the end of June and 1 to 2 through August. The last was seen there on 2nd Oct. Two pairs bred at Brigg Sugar Beet factory and at Bardney.
On the Humber 332 Ringed Plover were counted on 6th March and 584 on 14th Aug. Gibraltar Point maxima were 110 on 29th Aug. and 100 on 2nd Oct.
The Wash winter numbers were low. In addition to the coastal sites Ringed Plover bred at Brigg Sugar Beet factory (5 pairs) and at Bardney, Kirton Quarries and Winterton Road. The count totals for Golden Plover showed that there were upward of 7,500 at the end of November and over 8,000 at the end of the year wintering in Lincs. and S. Humberside. Large flocks on passage, many birds in summer plumage were observed at Temple Bruer in mid-April. Peak Numbers for Grey Plover were 492 on the Humber in mid Aug., 460 at Gibraltar Point on 18th Sept. and 800 there on 28th Oct.
The Humber had its maximum count of Lapwing on 6th Feb. and there were 1,000 at Trent Falls on 25th Feb. Numbers were lower on the Wash.
Brigg Sugar Beet Factory had 6 breeding pairs and 20 pairs bred on Lea Marshes. The main concentration of Knot on the Wash was at Friskney which accounted for about half the total number on all three counts.
Nearly 6,000 were on the Humber on 13th Feb. Peak numbers at Gibraltar Point were 13,000 on 6th March, 10,000 on 31st Aug. and 12,000 on 14th

Sept. On the winter count dates Sanderling numbers were low. Butterwick held 217 of the 231 counted on the Wash on 6th Feb. 258 were counted on the Humber on 6th March and a peak of 1,205 on 5th June. This is an exceptionally large number unusually late - spring peak is usually 400-500 birds two to three weeks earlier. The only comparable year is 1973 when 500 were seen on 4th June also off the Humber mouth. Gibraltar Point peak for 1977 was 750 on 30th July. Winter records of Little Stint included 3 at Terrington on 9th Jan. and 2 on 6th Feb. There were 9 counted on Humberside on 6th March. Gibraltar Point had 1 on 15th May. Among the autumn records were 4 at N.Killingholme Haven in Aug. and Sept., 1 at Covenham reservoir 10th Sept. and 1 or 2 occasionally at Gibraltar Point from end of July to end of Oct. One was seen at Messingham Sand Quarries on 29th Sept. Pectoral Sandpiper was recorded at Gibraltar Point 13th to 15th Sept. Curlew Sandpiper were at N.Killingholme from August to Oct., 6 being recorded on several occasions. Gibraltar Point had 1 to 4 during the same months and 3 were seen on Holbeach Marsh on 10th Sept. A single Purple Sandpiper was recorded on the Humber on 13th Feb. In autumn single birds were recorded at Gibraltar Point in mid Aug., Chapel Point 18th Sept., Winteringham 15th Oct. and Whitton 13th Nov. Over 5,000 Dunlin were regularly present on the Humber from Jan.to May and over 7,000 in Oct. The biggest concentration on the Wash was at Terrington with 4,000 to 5,000 on all three count dates. Gibraltar Point peak was 2,000 in Aug. Ruff were present on the Humber in Jan. at least 16 were at Killingholme in April and 1 male and 3 females were displaying on Alkborough Flats on 8th May. In autumn they were recorded at Barton on Humber at the end of July, at Killingholme and at a few inland waters not far from the Humber. There were 7 at Gibraltar Point on 11th Sept. and the last of the year was there on 15th Oct. There were 5 Jack Snipe at Trusthorpe Sewage farm in Jan. and 1 at Gibraltar Point on 5th. They were recorded on the Humber in Feb. April and May and 7 were at Messingham Sand Quarries on 13th March. In Autumn singles were recorded at Gibraltar Point and on the Humber and Ancholme from Sept. to mid-Dec. Gibraltar Point had 40 Snipe on 1st Feb. and 47 on 13th March. A total of 89 were counted on the Humber on 13th Feb. and 47 were at Messingham Sand Quarries on 6th March. Up to 40 were recorded there in Oct. and up to 20 at Gibraltar Point in November. Breeding records included 11 pairs at Baston Fen and at least 1 pair at Epworth Turbary. The peak record of Woodcock at Gibraltar Point was 11 on 2nd Jan. In April single Black-tailed Godwit were recorded at Gibraltar Point and up to 3 at N.Killingholme. A pair was at Trent Falls during the latter part of the month and 31 flew west on 25th and 1 on 23rd May. In autumn up to 6 were recorded at Gibraltar Point from August to November. One was seen at Horseshoe Point on 3rd Sept. and 1 at Trent Falls on two occasions in July and Aug. with 4 on 20th Aug. The main Wash concentrations of Bar-tailed Godwit were at Gibraltar Point, Wrangle and Dawesmere. A total of 94 were recorded at Trent Falls flying west between June and August, 51 of these on 5th July. In autumn an estimated 500 flew in at Horseshoe Point on 3rd Sept., and the peak at Gibraltar Point was 4,000 on 17th Sept. A single Whimbrel was recorded at Trent Falls on 26th March with 1 to 2 from late April to mid May, and 11 at Gibraltar Point in mid May. On 16th July 17 were recorded there and 86 on the Humber on 30th. Trent Falls had a total of 54 from early July to early Sept. 4 were seen at Horseshoe Point on 3rd Sept. and 4 at Alkborough on 17th Sept. The last record at Gibraltar Point was on 13th Nov. Dawesmere and Terrington accounted for about half the wash totals of Curlew on all three count dates. Trent Falls had a total of 758 from 11th June to the end of August. Small numbers of Spotted Redshank were recorded between May and Oct. On the Jan. count Redshank were fairly well distributed but Frampton, Kirton and Terrington had the largest concentrations on the Wash in Feb. In Dec. almost half were at Terrington. Breeding sites included Tetney, Alkborough Flats, Messingham Sand Quarries, Winterton Road and Baston Fen. A single Lesser Yellowlegs was reported at Leverton Marsh on 29th Aug. (submitted to British Birds for assessment.) There were winter records of Greenshank on the Humber with 1 on 9th Jan. and 3 on 27th Feb. 1 at Pye's Hall 13th March. Up to 12 were recorded from March to May. Gibraltar

Point had up to 4 in May. A single was recorded inland at Donnington on Bain on 27th April. Singles were recorded at Gibraltar Point in June and 8 were there on 10th Aug. There were 13 at Trent Falls on 8th Aug. and 22 at N.Killingholme Haven on 26th Sept. There were 1 or 2 at Messingham Sand Quarries in July and 1 on 29th Sept. A single was at Gibraltar Point on 19th Nov. At least 1 Green Sandpiper was present on Nettleham Beck through the winter. A single was recorded at Deeping St. Nicholas on 12th March and singles at Gibraltar Point and on the Humber in April. There was numerous records between July and December on the Humber and at many inland sites, and 7 at Gibraltar Point in August. A single Wood Sandpiper was recorded at Barton on Humber on 25th Aug., and 1 or 2 were at N.Killingholme Haven in Aug. and Sept. At Gibraltar Point there were 1 or 2 on 6 days in Aug. Messingham Sand Quarries had 2 unusually from 15th to 28th Aug. and Trent Falls 1 on 23rd Sept. Common Sandpiper was widely recorded in small numbers both inland and on the coast from mid April to early May, and birds were present at Winterton all summer. In autumn numbers were greater with 10 at Trent Falls on 13th Aug. 10 at Messingham Sand Quarries on 22nd, 6 at Bar_ow and 5 at N.Killingholme Haven in Aug. and Sept., and 13 at Gibraltar Point on 19th Aug. The last at Ferriby was on 26th Nov. Among inland records were 15 birds at Burton Gravel Pits on 22nd Sept. Turnstone main concentrations on the Wash were at Holbeach in Jan., at Butterwick and the Witham mouth in Feb. and at Terrington in Dec. Peak counts for the Humber were 377 in early May and 300 in mid-Oct. Gibraltar Point had a peak of 50 in early Aug. Red-necked Phalarope was recorded at N.Killingholme Pits on 18th June. On 18th Sept. a Pomarine Skua was seen at the Witham mouth. Gibraltar Point had 1-9 Arctic Skua from 20th June through July and a peak of 40 on 6th Aug. There were 9 on the Humber on 30th July, 2 on 14th Aug and 8 on 17th Sept. The last recorded there was on 13th Nov. Trent Falls had 5 on 18th Aug. On 17th and 18th Sept. birds were seen from Chapel Point and 5 at the Witham mouth. Also on 18th Sept. a dark phase Long-tailed Skua was recorded at the Witham mouth. From 30th Aug. Great Skua were seen regularly at Gibraltar Point through Sept. with 8 on 16th, and 17 on 17th. On the same day 6 were on the Humber, 2 at the Witham mouth and 3 on 18th Sept. A single was at Gibraltar Point on 5th, 6th and 13th Nov. and 2 on the Humber on 13th Nov.

Apart from the rare ones Gulls are an under recorded group. The massive migration of Common Gulls in July receives little attention, and other species are not popular with counters. The rarer gulls do receive attention. A Little Gull was recorded at Barton on Humber pits on 12th Feb. and immatures at Trent Falls on 28th May. At Gibraltar Point there were 2 on 14th Sept. and 1 on 15th and 18th, and 1 was recorded at Tetney Haven on 18th. On 17th Sept. 4 immature Sabine's Gull were seen at the Witham mouth and 1 on 2nd Oct. There was a record at Donna Nook on 13th Nov. The occurance of 6 of this species in one year is a most interesting record. The Humber maxima counts of Black-headed Gull were over 7,000 on 6th March and 6,000 in Nov. There were very large numbers at Trent Falls in Aug. with 10,000 on 1st and 15,000 on 28th. Gibraltar Point had 1,000 on 17th March and up to 1,000 in Aug. and Sept. with 2,000 on 6th Sept. The maximum count of Common Gull on the Humber was 1,330 on 9th Jan. with a second peak of 775 in July. Gibraltar Point had 1,000 in mid-July. There were large flocks at Appleby in Aug. Numbers of Lesser Black-back were small in spring - 18 were counted on the Humber on 13th Feb. The maximum number counted in autumn was 49 on 17th Sept., but up to 500 were at Trent Falls in autumn. The Gibraltar Point peak was only 40 on 20th Nov. Herring Gull numbered over 700 on the Humber in early Jan. with between 200 and 300 there for the rest of the year. Gibraltar Point had 1,000 on 26th Aug. A single Glaucous Gull was recorded at Gibraltar Point on 28th March, 5th April and 5th Nov. The colony at Frampton accounted for a large proportion of Great Black-backed Gulls on the Wash. Of the 400 plus counted on 9th Jan. 350 were at Frampton and all but 15 of the 245 counted in Feb. On the Humber 538 were counted on 9th Jan. Gibraltar Point had its peak count of 300 on 30th Aug. and there were 500

at Trent Falls in late autumn. In Dec. 550 were at Frampton. An immature Kittiwake was at Trent Falls on 19th and 20th March. From then until 21st Aug. a total of 90 birds was recorded, the maximum being 34 on 1st May. Gibraltar Point had 15 on 30th May. An exceptional number was recorded in autumn and early winter. The Humber peak was 1,850 on 12th Nov. and 1,000 at Gibraltar Point on 18th. On 17th Sept. there were 100 at the Witham mouth. The numbers of passage terns appears to be lower than in previous years. In Spring there were up to 6 Sandwich Terns at Gibraltar Point from 22nd April. There was 1 single at Trent Falls on 31st May and 30th June. Autumn passage was well marked with 300 recorded on the Humber on 31st July and up to 1,000 in Aug. at Gibraltar Point. The last was seen at Gibraltar Point on 14th Oct. On the Humber 27 Common Tern were recorded on 15th May and 2 at Hobhole also on 15th There were 1 to 3 at Trent Falls from 22nd May to 23rd June with 17 on 27th May. Birds were present at Frampton in June and 8 were recorded at Winterton Mines on 10th July. In autumn Gibraltar Point had 800 "comics" on 2nd Aug., and Trent Falls 42 "comics" at the end of Aug. and 70 on 2nd Sept. At North Hykeham 5 were recorded on the Witham in Oct. Arctic Tern were recorded occasionally on the Humber and coast. On 27th May there were 13 in the Scunthorpe area and a single was at N.Killingholme on 18th June. In autumn definite records were scarce. Trent Falls had up to 5 in late Aug. and early Sept., and there were 6 on three days during the same period at Gibraltar Point. There was a record from Hobhole Sluice on 13th Aug. Breeding pairs of Little Tern numbered 203, the highest for many years but less than 50 flew because of flooding.

Distribution of Nest Sites

Tetney	120
Skidbrooke North End	35
Saltfleet	6
Saltfleetby	22
Skegness	3
Gibraltar Point	15
Witham below Boston	2 - the first breeding record for this area

The first Little Tern was seen at Gibraltar Point on 22nd April. The max number there was 33 during the first week of July. On the Humber 51 were recorded on 15th May and birds were present to 18th Aug. There were 16 at Covenham reservoir on 1st Aug. A late bird was seen at Horseshoe Point on 10th Sept. Near the Witham mouth 5 birds were seen on 19th July and 2 at Hobhole Sluice on 13th Aug. A Black Tern was recorded at Toft Newton reservoir in May and 4 at Trent Falls in late May. In autumn there were 1 to 2 at Gibraltar Point in Aug. and early Sept., 10 were recorded at Covenham reservoir on 10th Sept., a single at Ashbyville and 2 at N.Killingholme Pits in late August. Trent Falls had up to 15 during the last week of August and up to 3 in Sept. with the last on 23rd. One was seen at Dogdyke on 4th Sept. An immature White-winged Black Tern was recorded at Trent Falls on 25th and 26th Aug. and there was a single bird at Covenham reservoir on 10th Sept. Single Guillemot were recorded at Gibraltar Point on 11th April and 30th May. Autumn sightings there were 1 on 16th and 2 on 17th and 18th Sept. and 1 was seen from Chapel Point on 18th. In Nov. there was 1 at Gibraltar Point on 13th and 2 on 20th. A Little Auk was recorded on the Humber in Dec. A Puffin was seen at Gibraltar point in July, 3 on 12th Sept. and a single on 16th.

Only small numbers of Stock Dove were recorded. Very large flocks of Woodpigeon were on the coast in winter with an estimated 10,000 at Gibraltar Point on 12th Dec. Collared Dove were widely reported. The first Turtle Dove was recorded at Gibraltar Point on 24th April and a peak of 250 was reached on 11th June. At Trent Falls over 700 were recorded in total from 27th April to 12th July flying west. Autumn numbers were fewer. From 28th July to 28th Sept. Trent Falls had a total of 237 flying east with a peak of 25 on 29th July. Messingham Sand Quarries had recorded 40 to 50 on the previous day.

A female Cuckoo was recorded at Grimsby on 31st March.Gibraltar Point had up to 6 during the summer.

Resident Owls continue to be under recorded. Barn, Little and Tawny Owls give the impression of being relatively common. There were up to 4 Long-eared Owl at N.Killingholme Haven from Sept. to Dec. A nesting pair at Epworth Turbary was unsuccessful. There were up to 6 Short-eared Owl throughout the year at Gibraltar Point, and numerous records from the Wash and Humber and from the Fen Edge in winter. A pair was seen in Tillbridge Lane on 30th March.

Nightjar were recorded at Twigmoor, with 4 present in late May, and at Scotton Common and Stapleford Woods.

The first Swift record at Gibraltar Point was on 1st May, and the max. was over 5,000 on 30th June and 17th July. The last records of the year were of a single at East Barkwith on 9th and Lincoln on 10th Oct.

At Gibraltar Point Kingfisher singles were present occasionally from Jan. to March and Aug. to Nov., and there were numerous records on the Humber and Trent and from inland waters. Breeding was recorded at Burton Gravel Pits and Laughton Forest. A Hoopoe was recorded at Gibraltar Point on 7th May.

Up to 5 Wryneck were recorded at Gibraltar Point between 20th and 27th Aug., and there was a single at Messingham on 10th Aug. Green Woodpecker and Great Spotted Woodpecker bred. On the coast a Gt. Spotted was recorded on 20th July and a Green on 3rd Sept. at Gibraltar Point. Records of Little Spotted Woodpecker included 1 at Whisby in August and at least 1 in Dole Wood in Dec.

Passerines are noted under three headings, Breeding and Summering, Passage, and Wintering.

Breeding and Summering There were breeding records of Yellow Wagtail at Scotterthorpe and Chowderness. Up to 3 Grey Wagtails were recorded at Gibraltar Point in late June and early July. 6 singing male Nightingales were in Twigmoor Woods on 21st May and one in Knowles Wood on 11th June. A pair of Redstart were seen in Grimsthorpe Park on 26th June. A pair of Whinchat bred at Epworth Turbary and reared 5 young, and a single was recorded at Santon on 14th July. In the Binbrook area a pair of Wheatear was seen in late May and a pair at the end of June with young. A Wood Warbler was recorded at Whisby in June. Bearded Tit bred at the usual sites on the Humber. Two pairs of Red Backed Shrike bred in the Wolds and another pair possibly in the Donna Nook area. Hawfinch was seen in early June in the Tealby area.

Passage. Woodlark no longer breeds and is now only seen as a spring and autumn migrant. 3 were recorded at Gibraltar Point on 17th Nov., and nine days later the maximum count of 500 Skylark occured. There were an estimated 10,000 Sand Martin at the Barrow Haven roost by the end of August, and 3,000 Swallows - 15 were still there on 28th Oct. Trent Falls had peaks of 1,100 Sand Martin and 1,000 Swallows. At Gibraltar Point peak numbers were 1,500 Sand Martin on 11th Sept., 3,000 plus Swallows on 3rd and 5th September and 200 House Martin on 4th Sept. Also on 4th Sept. 1,200 Swallows were observed passing in one hour at Grimsby. There were good numbers of migrant Pipits on the coast. Inland records for Tree Pipit included an early one at Messingham Sand Quarries from 9th to 13th April. Meadow Pipit numbers reached 525 in Sept. at Gibraltar Point. Rock Pipit was recorded in the first week of Jan. at Gibraltar Point and a single was there on 5th June. At Whitton 3 were recorded on 12th Feb. and up to 3 at Trent Falls from Jan. to mid March. In autumn Trent Falls had 1 to 2 and Gibraltar Point up to 5 from late Oct. to Dec. A Water Pipit was seen at Grimsby Dock in Jan. and March and again in mid Oct., and 1 was recorded at

Gibraltar Point on 10th April. Yellow Wagtail was recorded at Trent Falls on 15th April and on 23rd there were 4 at N.Killingholme. The peak at Gibraltar Point was 55 on 27th April. Passage continued heavy during the first week of May with birds seen at S.Hykeham, 15 at Donington on Bain and 35 at Ashbyville. In the same week 2 Grey Wagtail were recorded at Messingham Sand Quarries and 1 at Gibraltar Point, and a Grey-headed was there on 23rd and 24th May. White Wagtail was recorded on 16th April at Gibraltar Point and Trent Falls.
In autumn 30 to 50 Yellow Wagtail were roosting at Barrow Haven in Aug. and Sept., and 20 at Skyers Drain Epworth on 21st Aug. Up to 4 Grey were recorded at Gibraltar Point and on the Humber through Sept. and 6 White were at Gibraltar Point on 13th Sept. The last week in Oct. showed peak numbers of Wren, Dunnock and Robin at Gibraltar Point.
A Black Redstart was at Messingham Sand Quarries on 16th March and 1 to 2 at Gibraltar Point 19th March to 5th April and 1 on 5th May.
In autumn 1 was recorded at Winterton Road on 2nd Sept. and up to 5 at Gibraltar Point from 14th to 23rd Oct. Gibraltar Point had 1 to 2 Redstart from 24th April to 6th June and a male was seen at Ancaster on 28th April. Autumn records include 1 at Burton on Stather 2nd Sept. and 11th Oct. and a female at Pye's Hall on 3rd Sept. On 24th Sept. 6 were seen at Saltfleetby and the peak of 25 at Gibraltar Point the next day. The last was seen there on 23rd Oct. At Messingham 2 Whinchat were seen on 24th April, singles in May on the Humber and 2 at Gibraltar Point on 30th April. Autumn sightings included 1 at Santon on 14th July. From 21st Aug. to the end of Sept. there were records of up to 5 on numerous sites near the Humber and coast, and 3 inland at Boothby Low Fields. Numbers at Gibraltar Point were low with a peak of 11 on 14th Sept.
A late bird was at Tetney Haven on 13th Nov. The earliest Wheatear record was of 2 on the Humber on 6th March. In mid March there were records from Barrow Haven, Gibraltar Point and inland at Spalding, Ancaster and Lincoln. Peak passage came in late April and early May when records came from 25 sites widely spread over the counties. Autumn records were mainly from the coast with a peak of 50 at Gibraltar Point on 21st Aug. and birds were seen there until 26th Oct. Ring Ouzel singles were recorded at Winterton Mines 4th April, Gibraltar Point on 5th and Buslingthorpe on 16th. In autumn there were up to 4 on five days in Sept. and Oct. at Gibraltar Point, and recorded at Saltfleetby. Peak spring passage of Blackbird at Gibraltar Point was 30 on 6th March, in autumn over 100 were recorded on several days in late Oct. and early Nov. There was a mid winter movement of Fieldfare and Redwing in Jan. when 1,200 Fieldfare and 750 Redwing were recorded at Gibraltar Point. Fieldfare were first noted there on 18th Aug. and there were 500 in late Nov. and 100 counted on three separate sites on the Humber in late Nov. and early Dec. 8 Redwing were recorded at Stainton le Vale on 11th Sept. and 500 were at Gibraltar Point on 22nd Oct. Cetti's Warbler was recorded at Barrow Haven on 6th March.(Record submitted to British Birds) - if accepted this will be the first recorded in the counties. The first records for Grasshopper Warbler came from North Killingholme and Gibraltar Point both on 23rd April. They were recorded at Gibraltar Point on most days to 10th May. A Savi's Warbler was recorded singing in a small reed bed at Alkborough on 7th May (submitted to British Birds) if accepted this will be the fifth county record. Sedge Warbler was recorded at Burton on Stather on 23rd April and Reed Warbler at Gibraltar Point the next day. The Icterine Warbler caught at Gibraltar Point on 28th May was an interesting record. In autumn a single was recorded on 20th and 21st Aug. and 4 on 23rd. Barred Warbler was also recorded at this time. The spring records for Cetti's, Savi's and Icterine Warblers are interesting in view of the spread of these species in Europe. Lesser Whitethroat singles were recorded at Gibraltar Point and at Burton on Stather on 30th April and 5 at the latter on 1st May. In autumn the max. at Gibraltar Point was 10 on 27th Aug. The first Whitethroat appeared at Gibraltar Point on 19th April with 40 in late May and early June. Garden Warbler was first recorded at Twigmoor on 28th April. A Greenish Warbler was recorded at Gibraltar Point on 23rd and 24th Aug. and a Yellow Browed on 20th Sept. and 15th Oct. Willow Warbler arrived at Gibraltar Point on 9th April.

Goldcrest numbered 300 at Gibraltar Point on 27th Oct. and a single Firecrest was recorded in Spring on 23rd April. A single Spotted Flycatcher arrived there on 28th April and in autumn there were 6 on 12th Sept. and the last on 24th Oct. Pied Flycatcher were recorded at Burton Gravel Pits in May, 1 or 2 were present at Gibraltar Point from 3rd to 16th May and again from 15th Aug. to 2nd Oct. with peaks of 50 on 20th Aug. and 34 on 24th Sept. One was seen at Birthorpe on 20th Aug. and records of up to 3 came from the Humber. There was one at the Witham mouth on 17th Sept. Bearded Tit were recorded at places away from their breeding sites in Oct. including Burton Gravel Pits and parties of 10 to 20 were seen at Trent Falls in the autumn. Marsh Tit were recorded at Laughton and Twigmoor. Willow Tit and Coal Tit were scarce this year at Gibraltar Point. Singles only of the former were recorded in spring and autumn, there were up to 5 Coal Tit occasionally in the autumn. Blue Tit maximum was 33 in Jan., and 7 Great Tit in March. Nuthatch was recorded in Dole Wood in Dec. and unusually in Chamber's Wood near Wragby in mid April. This record is outside the normal area. Single Treecreeper were recorded at Gibraltar Point on 13th and 23rd Aug. and 20th Nov. Red backed Shrike were recorded on the coast in good numbers in Aug. and Sept. Two Great Grey Shrike were recorded at Burton Gravel Pits and singles at Gibraltar Point in mid Oct. Hooded Crow were recorded on the coast and inland at numerous sites in the early part of the year with 9 at Messingham on one occasion. Records in Nov. and Dec. were fewer. Peak numbers for passage finches at Gibraltar Point were Chaffinch 300 in Oct. and 100 Greenfinch in the same month with 600 in Jan. Goldfinch 260 in Nov. Single Siskin were recorded at Scawby Gull Ponds at the end of Jan., Messingham Sand Quarries at the end of Feb. and at Gibraltar Point at the end of April. In autumn Messingham had a single in mid Sept. and Nov. Scotton Common in Nov., and Gibraltar Point a single in Oct. and 2 on 25th Dec. There were 5 at Trent Falls in early Nov. On 24th April 950 Linnet were recorded moving south at Gibraltar Point. Trent Falls had a total of 425 during the last three weeks of April and in Nov. 350 were recorded at Gibraltar Point. The peak for Redpoll was 300 at Gibraltar Point in early September. A single Crossbill was recorded at Gibraltar Point on 17th July. Bullfinch peak there was 12 at the end of Oct., and Yellowhammer 20 at the end of Nov. In Jan. 40 Yellowhammer were recorded at Messingham. A single Yellow-breasted Bunting male was recorded at Gibraltar Point on 15th May. Reed Bunting peaks were 100 in April, Oct. and Nov. at Gibraltar Point and 500 at Trent Falls in Jan. and from Oct. to Dec.

Wintering Passerines

Shore Lark were less abundant than in previous winters. There was a maximum of 9 at Gibraltar Point on 26th Nov. Wintering Grey Wagtail were recorded from Winteringham-Ferriby, the Scunthorpe area and along the Ancholme, and a single White Wagtail was recorded at Gibraltar Point in early Jan. Good numbers of Waxwing were seen including singles at Barton on Humber and Chowderness both on 15th Jan., a single at Goxhill on 22nd and 7 at Waltham on 30th. In mid Nov. there were 2 at Broughton, a large party at Crosby Warren on 4th Dec. and 2 at Brumby Common on 14th Dec. Records of 1 or 2 Stonechat were spread widely through the counties from Jan to March with up to 5 at Gibraltar Point and 5 on the Humber. From Oct. to Dec. there was a similar distribution with records also from the Wash. Wintering Great Grey Shrike included 1 at N.Thoresby on 16th Jan. Blackcap and Chiffchaff appear to have over wintered. Blackcap were recorded at Gibraltar Point on 6 days in early Jan. and at Theddlethorpe in Jan. and Chiffchaff was present at Gibraltar Point on 31st Dec. Large parties of Long Tailed Tits were recorded - one at Twigmoor in Dec. numbered 44. Treecreeper were frequently recorded in woodlands wintering with parties of Tits. Unusual concentrations of Chaffinch were noted in the Scunthorpe area. About 400 were recorded at Ashbyville in Dec. and others of about 30 birds. Brambling records appear to be down but there was a large flock with Siskin at Scawby Gull Ponds on 29th Jan. A flock

of 20 Siskin was at Boultham Park and a smaller flock at Hartsholme in late Dec. The total number of Twite recorded round the Wash on 9th Jan. was 850 with about the same number on 6th Feb. and there were 200 plus at Tetney in Jan. and Feb. There were nearly 2,000 on the Wash in mid Dec. The 1,000 recorded at Gibraltar Point in mid Nov. was the highest number recorded there in recent years. There were 13 records for Lapland Bunting in early winter on the Humber and N.Lincs coast. Snow Bunting had increased steadily since 1973 but there were smaller numbers this year perhaps indicating a poor breeding season in the Arctic. The maximum number recorded at Gibraltar Point was 120 in mid Jan. Corn Bunting were recorded in good numbers wintering on the salt marshes.

P.J.Wilson
Joan Garlick

First and last Dates for Selected Migrants, as submitted by LNU Contributors

Species	First	Last
Jack Snipe	24th September	8th May
Black-tailed Godwit	3rd April	20th October
Whimbrel	26th March	13th November
Greenshank	9th January	19th November
Common Sandpiper	17th April	26th November
Arctic Skua	20th June	13th November
Sandwich Tern	22nd April	14th October
Common/Arctic Tern	22nd April	22nd October
Little Tern	20th April	10th September
Turtle Dove	24th April	28th September
Cuckoo	31st March	14th September
Swift	1st May	12th October
Sand Martin	19th March	24th October
Swallow	9th April	22nd November
House Martin	18th April	23rd November
Tree Pipit	9th April	15th September
Yellow Wagtail	15th April	25th October
Redstart	24th April	23rd October
Whinchat	24th April	13th November
Wheatear	6th March	26th October
Fieldfare	18th August	4th May
Redwing	11th September	10th May
Grasshopper Warbler	23rd April	6th September
Sedge Warbler	23rd April	15th September
Reed Warbler	24th April	2nd October
Lesser Whitethroat	30th April	25th September
Whitethroat	19th April	15th October
Garden Warbler	28th April	2nd October
Blackcap	1st January	11th December overwintered
Chiffchaff	10th March	31st December overwintered
Willow Warbler	9th April	8th October
Spotted Flycatcher	28th April	24th October
Pied Flycatcher	3rd May	28th October
Brambling	13th September	15th May
Twite	11th September	4th May
Snow Bunting	24th September	13th March

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